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AMERICAN IRIS SOCIETY

APRIL, 1947
No. 105

IN MEMORIAM—HENRY LEE GRANT

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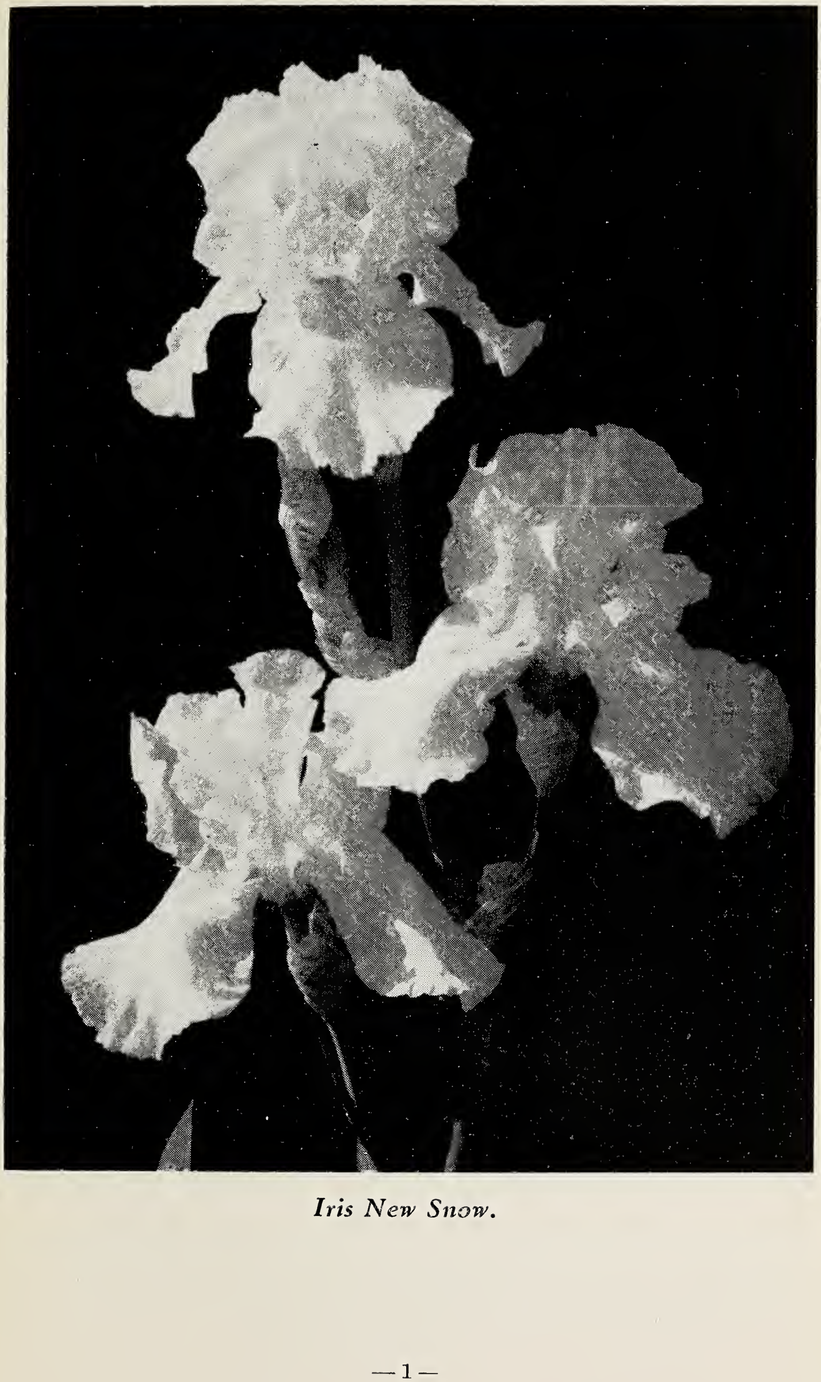
IRIS CHECK LIST—1939—Lists 19,000 names of iris and parentages; over 500 pages. Price $3.00 to members; $4.00 to non members. Mail Check and order to: Howard R. Watkins, Secretary.



Iris New Snow.

IN MEMORIAM

HENRY LEE GRANT

1894 - 1946

Horticulturist, from preference. Dentist by profession. Churchman by Faith. Citizen through duty. Gentleman by birth. Friend, in the truest sense of the word. In the passing of Henry Grant on December 24th, 1946, our Society has lost a valued member. He was a director of the American Iris Society for several years, but after becoming ill, he resigned, for he felt that he should not continue in this capacity unless he was able to attend the meetings and help with constructive work.

His host of friends will remember him not only for the beautiful iris he produced, but for his courage and patience during the years of his illness, and the faith that he would soon be on the road to recovery. A man of sound judgment and quiet humor, he kept his interest in iris to the end, and always was able to see and appreciate the ''other fellow's'' iris as well as his own.

A member of the American Iris Society since 1927, he began breeding iris even before this date, and, has produced many fine iris which have received awards. In recognition of his achievements the Society awarded him the medal for Hybridizing in 1944.

ELIZABETH NESMITH

GRANT IRIS AS I GROW THEM

BY ELIZABETH NESMITH

I met Dr. Grant on one of my early trips to Nashville and I was immediately impressed with his keen sense of values. That he knew his irises was apparent and also that he loved them. It was my privilege to have helped Henry Grant select many of his iris from the thousands of seedlings which he grew, and to have grown many of these seedlings which were selected for further observation as well as all of the named varieties that have been introduced. For this reason your Editor has asked me to comment upon them as they grow in my garden. This I shall do, for as with all hybridizers there were some which were disappointments—iris that seemed wonderful as seedlings but which do not hold up and had to be discarded. However, most of those sent into commerce are standing the test of time.

Dr. Grant was one of the first to use Alice Harding, and as you read through the list you will find that it entered into the parentage of many of his originations; Also you can observe the improvement from year to year, thus demonstrating the careful work that he did in breeding iris.

INDIAN HILLS (1937) (Pioneer X Cardinal). A true rich purple showing Cardinal influence. Wonderful garden value.

EXCLUSIVE ((1937) (Sensation X (.............. X Dominion) A periwinkle-blue self that at the present day is very valuable for landscape. H.M.1937. A.M.1939.

FRENCH MAID (1939) (Rameses X Alice Harding) A floriferous rose and golden copper blend, not as bright as some of the newer blends.

MOONLIGHT SHADOWS (1939) (Alice Harding X Los Angeles). Large white flushed with blue, rather slow of increase and has been superseded by White Wedgewood.

SUNGLEAM (1939) (Hypnos X Evolution) A Good yellow of earlier years, not outstanding at the present day.

THE GUARDSMAN (1939) (Winneshiek X ....). One of the first dusty pink and mulberry blends of larger size and good branching. Still a popuuar iris. H.M.1940.

THE DARB (1940) (King Tut X JEB. Stuart) X (Cheerio) Rich golden buff and burnished maroon, brighter in color, but not quite as tall as The Guardsman. H.M.1940.

ANCHORAGE (1940) (Alice Harding X Summer Tan) Red bitone of medium height and great garden value, increases rapidly and very hardy.

EVERGOLD (1940) (Alice Harding X Ayres seedling yellow) X (Yellow seedling). A bright yellow, but chief value was in breeding better yellows.

HEIRLOOM (1940) (Coppersmith X Dauntless) X (King Tut X JEB Stuart). Brilliant fuchsia-red blend that was a fore-runner of others in this coloring.

NOCTURNAL (1940) (Parentage lost). Classed as an Intermediate, this almost black-red blooms with the tall bearded, and is an impressive border iris.

ADVENTURE (1941) (I think the iris Mary Geddes was one of its parents). A cream and raspberry plicata, and one of the first in this class to be tall and well branched; Hardy, and increases rapidly. H.M.1943.

BLUE DELIGHT (1941) (Gloriole X Shining Waters). A flaring self of cool Wistaria-blue, it combines the good qualities of its parents without any tenderness.

CORAL MIST (1941) (Pink seedling X Portland). A fore-runner of the new pinks of the last few years, and especially nice for semi-shade. H.M.1942.

FAIR SKY (1941) (Gloriole X Shining Waters). A very pale blue iris, hardy with marvelous branching and delicious fragrance.

POT O'GOLD (1941) (Jelloway X ....) Probably Golden Hind was the other parent. The most brilliant yellow that I have ever grown from any source; Even brighter than Golden Hind and with much better form. Will be a favorite for many years to come.

SUNDAY BEST (1941) (Hall D.36-34 X Evergold) A very large, tall, well branched white, flushed with gold at the hafts. It has proven an excellent seed parent.

SUN SPOT (1941) (Jean Lafitte X W. R. Dykes) X (Opaline X Alice Harding). A very popular lemon yellow with a white spot on the falls; Hardy, increases rapidly and always behaves well in the garden. H.M.1941.

BIT O'HEAVEN (1942) (Cafe au lait X Golden Treasure). A delicate pale yellow reverse bicolor; Slow of growth, and there are others better in this class.

BURNISHED COPPER (1942) (Naranja X Coppersmith X Cherokee Red) X (Coppersmith X Dauntless). A warm metallic copper blend; Not one of Dr. Grant's best, it proved to be a disappointment.

DISPLAY (1942) (The Red Douglas X Christabel). A very handsome late flowering deep dark red, an iris that is a great addition to any collection. H.M.1942.

DUET (1842) (Rhapsody X ....). A chance seedling with a distinct personality; Honey beige flushed with pink. A great favorite on the Pacific coast.

GOLD DOME (1942) (Cafe au Lait X Golden Treasure). A sister seedling of Bit O'Heaven, brighter in color, but has the same faults.

SPARKLING BLUE (1942) (Shining Waters X Aline). A very tall almost flax-blue iris, very sweetly scented, marvelous branching, and extremely long season of bloom, hardy and one of the best tall blues.

WHITE WEDGEWOOD (1943) (Mount Cloud X Blue bearded blue seedling). A beautiful cool white with a heavy blue beard; Very large flowers, and splendidly branched. One of the best from Dr. Grant. H.M.1943. A.M.1945.

JASMINE (1944) (Sunday Best X Radiant). Rich deep golden yellow with velvety flush on the falls, and without any brown or orange tones. Tall with very wide branching, it is thoroughly hardy and is in the foremost ranks of the newest yellows. H.M.1944.

GOLDEN EPAULETS (1946) (Sunday Best X Chosen) A very heavy substanced flower of white with a neat smooth flush of gold on the hafts. Rapid of increase and thoroughly hardy.

MOUNT BLANC (1946) (Sunday Best X White seedling). A large pure white with heavy finish of a magnolia blossom; Hardy, floriferous, and well branched.

FRANK DRAKE (1947) (Snoqualmie X Golden Treasure). A cool reverse bicolor of gold and white with extremely heavy substance and excellent branching. A Regal iris, free flowering and very hardy.

PENSIVE (1947) (Sable X Deep Velvet). An almost black-violet flower of velvety finish and semi-flaring form. The flowers are of firm substance, and the stalks are well branched.

RESOLUTE (R. 1943) was never introduced for it proved to be a slow grower, but it is a lovely deep iris of smooth red. It came from (The Red Douglas X E.B.Williamson).

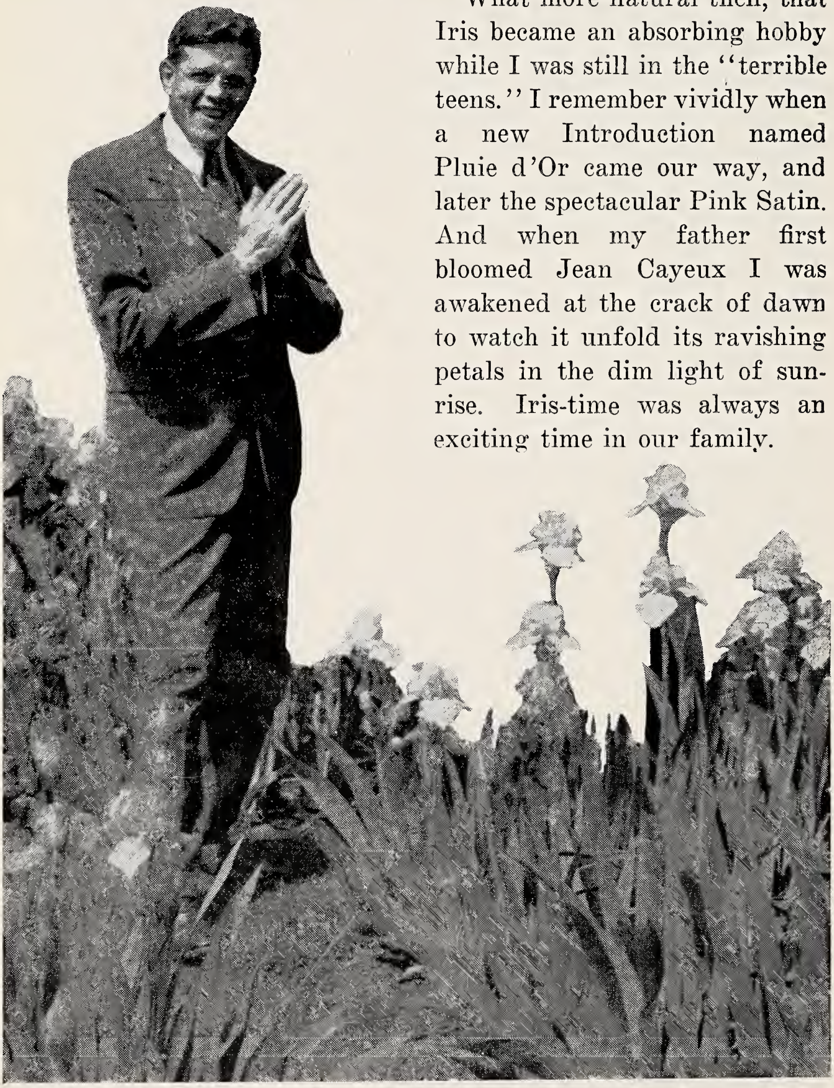
ROYAL PRINCESS, TB-La-B9D, and DARK ENCHANTRESS, TB-La-R7D, are two new iris registered in 1946 and will bloom for me in 1947 for the first time. This is also true of POLONADE, TB-MLa-W2, which is a sister seedling of Golden Epaulets.

Myth. A legend attributes the creation of the Iris to the goddess Flora. Juno gave Iris a birthday party and invited all the flowers. They came in their showiest apparel, rivaling even the gorgeous robe the rainbow-goddess wore. Flora, however, was not satisfied, so she hastily created three new flowers, clothing one in blue and one in purple and one in yellow and sent them to the party. When these lovely strangers entered Juno asked their names but Flora, in her haste, had forgotten to name them. "Because this is Iris's party," Juno said, "I shall call you all Iris.—*L. H. Beck, Ga.*

MEET OUR NEW PRESIDENT

■ Your Editor has asked me for a short autobiography. Unaccustomed as I am to this sort of request, I truly believe my horticultural interests were foreordained by having been born on Ground Hog Day 1906. I have been digging holes in the ground ever since, —at the age of three trying to get through to China, and later to plant anything that promised to grow and bloom.

What more natural then, that Iris became an absorbing hobby while I was still in the "terrible teens." I remember vividly when a new Introduction named Pluie d'Or came our way, and later the spectacular Pink Satin. And when my father first bloomed Jean Cayeux I was awakened at the crack of dawn to watch it unfold its ravishing petals in the dim light of sunrise. Iris-time was always an exciting time in our family.



At the age of thirteen I took an aptitude test for Medicine, rated well, took a Latin Scientific course at High School, double majors in Biology at Haverford College and Northwestern, sailed through Medical School, internships and residency at Children's Hospital—and have been perennially entranced by growing children and Iris ever since. Supply EITHER with the proper food, water and drainage—add plenty of sunlight—don't fuss over them too much—AND THEY BLOOM!

The practice of Pediatrics allows little opportunity for time-consuming hobbies, but I find that by adopting the catch-as-catch-can policy: an hour here and an hour there, I can grow iris, shoot a target revolver, sail a boat and occasionally delve into Great Lakes historical research on an evening off.

I joined the Navy in '42, got my Flight Surgeon's wings in '43 and learned to do wing-overs and a little miscellaneous flat-hatting before being sent to the Marshalls and Saipan with a carrier-based Squadron in time for the ''big turkey-shoot'' there in June. The kamikazes got too close upon one occasion, I was forced to retire to civilian life and rescue my seedling patch after two years of ''just growin'.'' There was one pretty nice seedling left: a frosty white with a blue beard that was *ever* so blue.

I hope the members of the Society will find much of interest in the gardens in and around Chicago on June 7th and 8th this year.

Dr. Franklin P. Cook

DR. ROBERT J. GRAVES

■ Our new Vice-President, Dr. Robert J. Graves, is a prominent physician and surgeon of Concord, New Hampshire. A graduate of Harvard College School of Medicine, he interned at the Massachusetts General and Boston Lying-in Hospitals and commenced practice in Concord in 1904.

A man of wide experience, he has been President of the New Hampshire Surgical Society, and is a Fellow of the American College of Surgeons. He was in the first World War medical corps, entering as a Major he came out as a Lieut. Colonel and returned to his duties in Concord.

Born in Boscawen, New Hampshire, his love of gardening commenced as a young boy, the first stage being the cultivation of the home garden of his father, Dr. E. E. Graves, who was a practicing

Vice-Pres. Robert Graves.

physician in Boscawen, New Hampshire, for many years.

His interest in iris dates back to 1912, commencing with the purchase of the Farr Nursery irises which were introduced around that time, and from then on he continued the addition of iris to his garden. However, he did not do much hybridizing until 1931. At that time he developed a great interest in breeding better white iris, using such varieties as Purissima, Gudrun, and some of the blues both as seed and pollen parents.

The first seedlings of his that were introduced were And Thou and Snow Carnival. Continuing along these same lines of breeding, his greatest triumphs are Lady Boscawen, a very pure white; Helen McGregor, a beautiful light blue, and Jane Phillips, which bloomed for the first time in 1946. It is a real blue, deeper in color than Helen McGregor, one of its parents, and it has beautiful form and substance.

Dr. Graves' family consists of his wife, Helen McGregor Graves, four children, and seven grandchildren. For several years he has been trying to retire from active practice, but the shortage of Doctors and the devotion of his patients have made it difficult.

His unassuming manner and happy smile have endeared him to all his friends, and we are fortunate in having such an able man for our Vice-President.

CHICAGO BOUND?

Ralph M. Schroeder

■ Soon will come May and early in that month you will begin studying the road maps. The opportune time for that long delayed trip to the iris gardens in the Chicago area is approaching. The annual meeting of the AMERICAN IRIS SOCIETY is to be held in the North Shore Hotel, Evanston, on June 7th.

This is written as a preview to your trip and your visit to the Chicago Gardens.

If you are coming from the west you may visit Omaha or Sioux City. The season at Omaha is at its height about the 30th of May, and there you will find Henry Sass as well as several others. Across the river in Council Bluffs, Ia., are the gardens of Mrs. McClanahan and Mrs. Tinley. Iris of special interest to be seen in the Sass garden are Mattie Gates, Rainbow Room and Salmonette.

At Sioux City the season is nearly the same as that of Chicago. Stopping here on the way to Chicago should give a better cross section of the gardens than the same visit on the way home. Here will be found the gardens of the Curriers, Mrs. Ricker, Dr. Dvorak, Chet Tompkins and Mr. Snyder. Among things of special interest are Ave Maria, Dreamland, Cape Ben, Honeyflow and Sontine.

About 40 miles southeast of Sioux City is Mapleton, the home of Mr. and Mrs. C. G. Whiting. In the Whiting Garden are better than 200 of the newer iris from America and England. These are in established clumps and should give typical bloom. There are also about 300 selected seedlings being grown for further test. Mrs. Whiting expects bloom on between two and three thousand seedlings. Of Mrs. Whiting's originations which I think particularly outstanding are Blue Rythm, Garden Glory, Rocket, Priscilla and Three Oaks. An older one of which we hear little, but which is fine in my garden, is Gilt Edge.

If coming from the south and southwest you will have less chance to see iris before arriving in the Chicago area. Miss Faught at Carbondale and Joe Becherer, ''Ap'' Appel and others will no doubt be glad to show you a fine crop of seed pods including the one containing the Dykes Medal winner of 1955. At Warrensburg, 9 miles northwest of Decatur, I may still have late bloom on New Horizon, Vision Fugitive and others. Some of these, should the season be late, may not yet be in bloom at Chicago. If you do miss the iris in my garden there will still be peonies, as well as most of the finer poppies and some of the newer daylilies.

Other gardens between St. Louis and Chicago are those of Mrs. Hahn in Springfield and Mr. Boomersbach, Mr. Lilly, Mr. Radke and Mrs. Vogel in Decatur. Mrs. Bach in Bloomington, Ill., and Mrs. Medberry at Armington all well laid out, and Dr. Branch at Piper City has a collection containing many of the newer varieties.

■ If your reservations are for rooms on the north shore, Chicago traffic may be avoided if you are coming from the west or southwest. If on route 66 turn left on Route 83 to Route 59, which will take you into Evanston. If you are coming on more northerly routes route 59 may be picked up at Elgin, Ill.

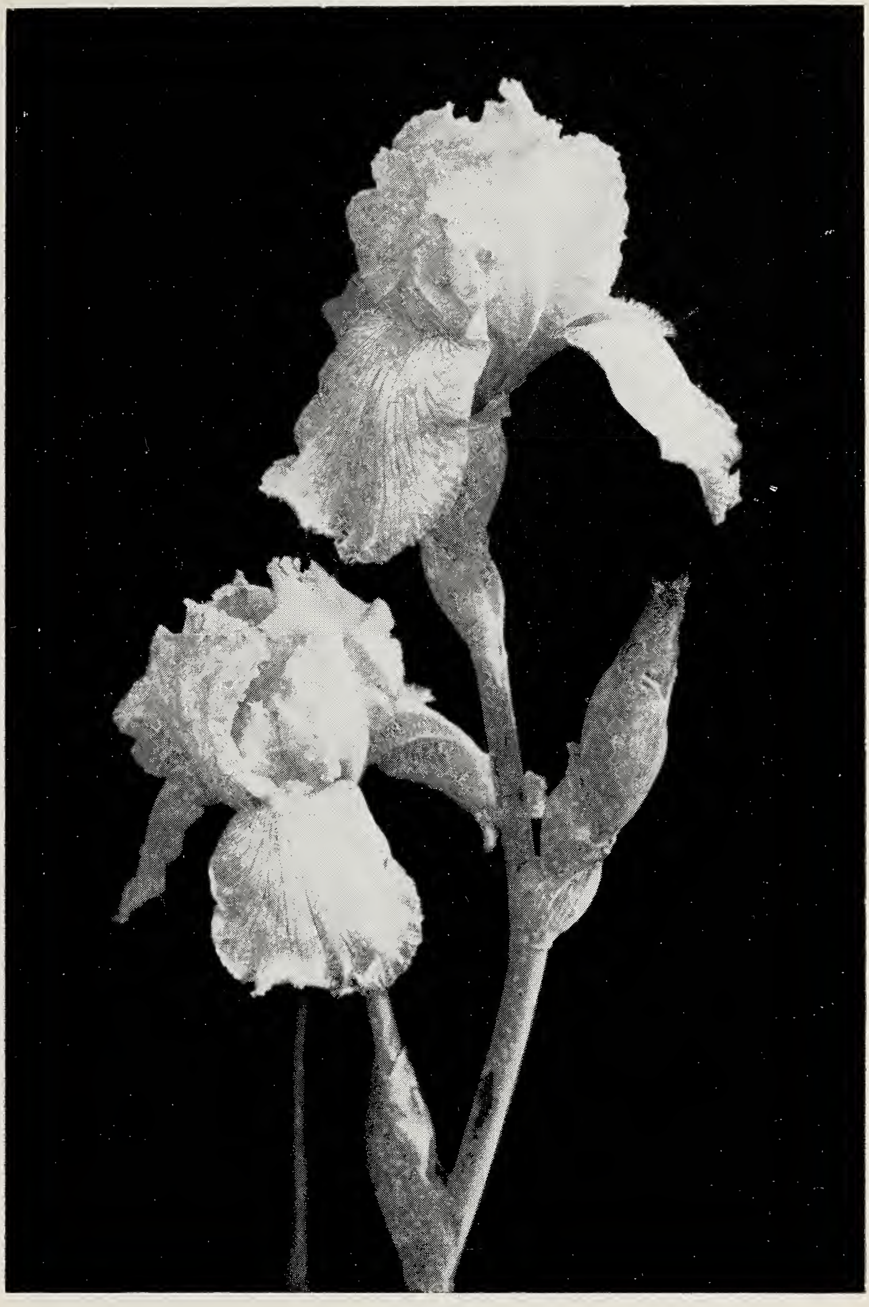
■ Coming from the east a stop should be made at Bluffton, Ind., and the Williamson and Paul Cook gardens. At the Williamsons' will be seen most of the newer commercial varieties, at Paul Cook's clumps of Distance, a fine new blue, and Salmonie, one of the finest of the pink blends. Of course there will be thousands of seedlings. The finest iris I saw there last year was a ruffled flesh colored seedling and if you can't locate this without help just ask Mr. Cook. Don't miss it.

From Bluffton to Elkhart will take about two hours and will permit a visit to the gardens of Mrs. Horton and Mr. Lapham. Three good new reds are Lights On, Blaze of Glory and Frank Pugliese. There are also two of the reddest seedlings which I have seen. Afar, one of the Isabellina x Spindrift pinks, may also be seen. Insult whatever Lapham iris you wish, but don't kick the bantams.

Other gardens on or near to main highways leading into Chicago are those of Mrs. Karcher, Freeport, Ill.; Ray Belsley, Peoria, Ill.; Frank Wright, Monticello, Ind.; Walter Buss, Vincennes, Ind., and TopNotch Gardens Deanette Small, Chesterton, Ind. New Iris are growing in all of these gardens, although some may be past their prime blooming season.

■ On the morning of June 7th we will meet at the North Shore Hotel. From there we go to the home of Dr. Franklin Cook. Many of you will remember the 1940 visit to Dr. Cook's garden when it was located on Sheridan Road, and where we were hoaxed by a green iris.

In the summer of 1941 this garden was moved to its present location while the new home was not yet completed. It is carefully



Iris Chantilly.

laid out with a 10 year plan and though the doctor was absent on duty with the navy for three years and the plan has been interrupted, it is already a fine garden.

At the east of the house is a wide bluestone terrace lined with dwarf Japanese yews, and looking out over an allee flanked by French lilacs, Canadian spruce and honeylocust that terminates at a small brick tool house. To either side of the allee are the display areas backed by a hedge of blue leafed Arctic willow with pyramidal yews and dwarf mandarin peaches for accents. Beyond this hedge are the trial and seedling beds and Copper Beeches, Chinese juniper (var. glauca) and Flowering crabapples of various sorts afford interesting points of foliage contrast.

Upon his return from the service Dr. Cook was pleased with the appearance of the garden and has tried to visualize what it would have looked like had he been a grower of roses or dahlias. He has expressed his appreciation, that such friends as Mr. Fishburn, Mr. Wills, Mrs. Clutton, Mrs. Whiting, Dave Hall and others, have assisted in building his new collection.

In the display area, iris are grouped according to Dr. Cook's ideas of color harmony. In the trial beds 20 or more novelties in each color class are grouped for comparison. In the seedling beds are the results of what Dave Hall calls "the screwiest crosses ever made." Some of these crosses are Blue Glow x Gulf Stream, Blue Shimmer x Great Lakes, Lord Dongan x Favori, Snow Flurry x New Horizon, Snow Velvet x Blue Shimmer.

■ When we are through looking at these "mistakes," we will cross the street, into Wilmette, to the home of the Fays.

The rustic fence across the front is lined on the inside with chrysanthemums of Orville's hybridizing. Along the west edge of the lawn are evergreens and white birches. The small white cottage is situated to the east, affording a vista through which the garden may be seen from the street. A large plum tree breaks the roof of the garage in the northwest corner of the property and under this tree is a bed generally containing Pansies, Tuberous rooted begonias and columbines.

A border extends about the lawn and four foot grass paths enclose a large central bed. There are both named and numbered seedlings including last year's selections. You will find Desert Song, Katharine Fay, Lake Breeze, New Snow, New Horizons and

Pale Dawn, a new red and yellow plicata and a fine yellow to be named. A colorful ruffled blue has always appealed to me. There will also be guest iris including two of these which attracted much attention in my garden last year, Cahokia and Pierre Menard, fine blues from the garden of Miss Faught.

One block north are the seedling beds. As I am fortunate enough to be acquainted with the background of these crosses, I do not hesitate to predict some very outstanding flowers.

■ The next stop in our journey will be to ''THE'' garden, that of Mr. and Mrs. David Hall (Dave and Mae to their intimate friends) and the PINK iris. This garden is divided into three parts, the home garden, the back 40 and the back 80.

The home garden at 809 Central Ave., Wilmette, most of you know. The garden remains similar but the planting is entirely new, —clumps of practically all of his introductions as well as of most of his best named or numbered seedlings, not yet introduced. In general every other plant is one of the new ''Flamingo Pinks,'' many of which will be excellent specimens of his third generation seedlings.

In the well known ''back 40'' across the alley is an interesting collection of some of the newer introductions of other hybridizers. Five blocks to the southwest is the ''back 80.'' Here are 1,300 one year seedlings. A record drought during the summer of 1946 will no doubt cut the usual percentage tof bloom on these plants but from all appearances there will be plenty to give a fine showing. About 800 of these seedlings are from his Flamingo Pink strain or bred for his ruffling, a trait which Mr. Hall wishes to establish as dominant by further breeding, and others are from his red, blue, russet and yellow strains.

While the visits to these gardens will take up all of the day of the meeting, it will be well worth while to spend several days in this area visiting other gardens.

Mrs. Clutton, who lives in Highland Park, has many newer varieties growing about a very interesting pool garden. They are interspersed with a great variety of perennials many of them blooming together with her iris in planned but casual combinations. Here one finds violas, lupines, and gas-plant combined with clumps of iris of harmonizing colors, as one climbs over large outcroppings of the rock that goes to form the glacial drift comprising the hilly slope.

Elmer Claar, the daylily authority, has many newer iris in his new garden at the end of Thornbrook Lane in Northfield. He also has a very fine collection of Tree and Hybrid Peonies.

"Hod" Hodson in Glen Ellyn is suffering from an infection caused by being bitten by a chromosome. He would enjoy company in his misery.

Dick Goodman, who is particularly interested in "Plicatas" and "Fancies," has one of the most striking gardens I have seen. He has taken full advantage of the benefits of a semi-wooded lot in Riverside. Also in this village are the gardens of Mrs. Brooks and Mrs. S. S. Fuller and other nonmembers of the society in this town have very interesting gardens.

In Oak Park is Gerry Donahue, who grows his iris one on top of the other with chrysanthemums and a few daylilies sandwiched in between. By now these sandwiches have no doubt reached Dagwoodian proportions. All flowers in this garden are well grown. Mr. Donahue attributes his success to a particularly fertile form of ashes produced by his furnace.

Two miles south of Hinsdale at the southwest corner of Route 83 and 63rd St. is the new home of the Hubert Fischers. For the time being the two year iris are being grown in a field west of the house. Frank Winter, who breeds delphinium as well as daylilies and irises, grows many of his fine delphiniums here. Some of these may be coming into bloom. This garden should be of interest as I am sure many will be interested in its future development.

Out on the South Shore of Chicago you will find two neighbors, John Bunneaux and "Link" Alverstrom. There will no doubt be some fine flowers in these two gardens. Mr. Bunneaux' Sierra Lakes and others are well worth seeing. (The Zinks, who were also neighbors, have recently moved to a new home at Munster, Ind.)

And so comes to close another iris trek. Many fine named varieties and unusual seedlings will no doubt be found as a large percentage of the gardeners mentioned do raise seedlings. Many have extremely interesting gardens. All have interesting personalities. It should be a swell visit.

Be Seein' You.

GOOD NEWS — COME HITHER

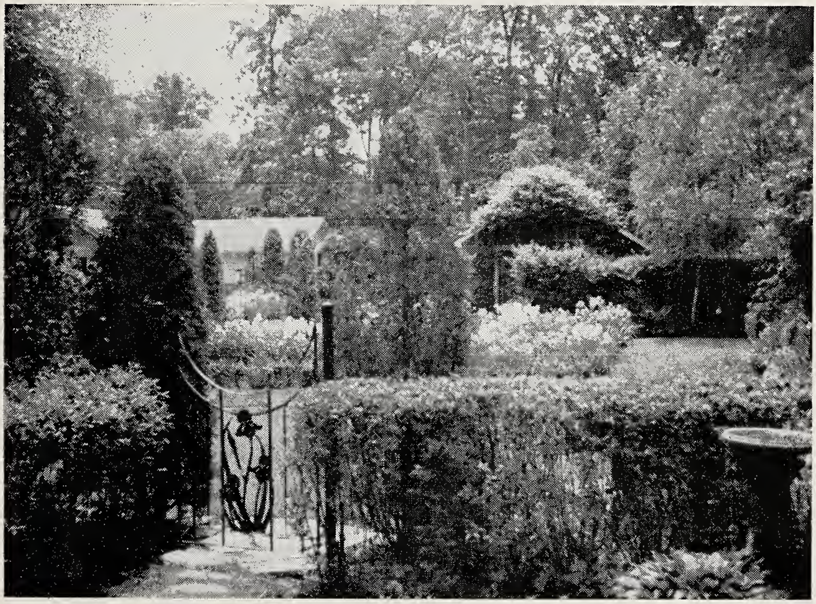
Virginia F. Clutton

GREETINGS and SALUTATIONS, iris fans, **Come** and be WELCOME GUESTS at this year's ANNUAL MEETING in CHICAGOLAND. Come one and all—and ESPECIALLY YOU—AND THOU.

ADVENTURE forth from your IVORY TOWER or your CLOUD CASTLE in DREAMLAND, Come from CANADAWAY or the BRITISH EMPIRE, from the ARCTIC or SUEZ, BERMUDA SAND or MANDALAY. **Come** from DOWN EAST or FAR WEST.

Come to this shore of the GREAT LAKES and enjoy the LAKE BREEZE and ILLINOIS SUNSHINE from DAYBREAK to NOONTIDE and till the AFTERGLOW of the LATE SUN shows us a PRAIRIE SUNSET of EXQUISITE beauty, a real PRAIRIE SERENADE when the CARILLON rings out.

WHETHER you be a FAVORITE SON in BUCKSKIN or a GAY SENORITA from the GOLDEN WEST in SILKEN GOWN with PINK RUFFLES and PINK VEIL smiling at your PINK



Hall side yard garden. Gate designed by Dave's daughter Jane.

REFLECTION; a DRUM MAJOR in GOLD CAPE and TRICORNE or a LADY IN VELVET and LAVENDER AND OLD LACE. **Come** as THE ADMIRAL or as a MARINE WAVE, as a FLIGHT LEADER on SPRING FURLOUGH from BURMAH ROAD or as a RANGER wearing the PURPLE HEART—**Come.**

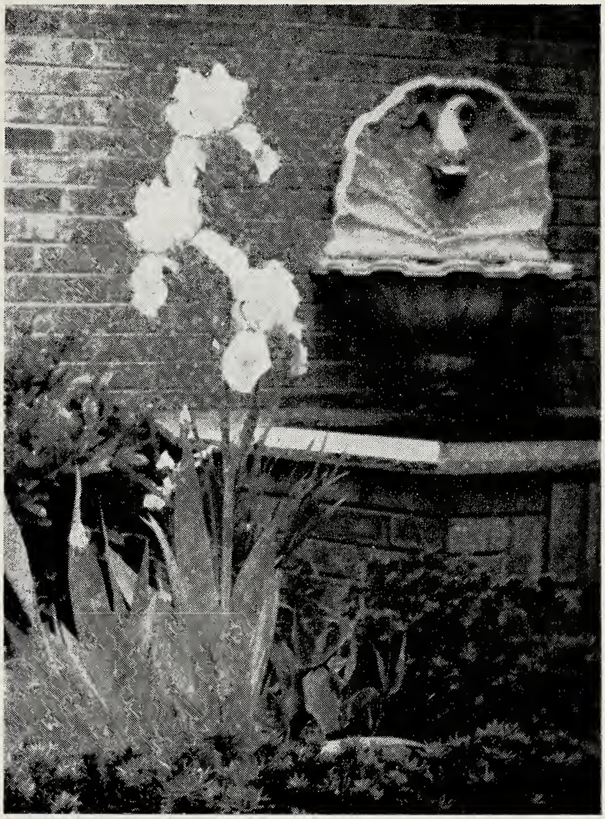
Whether like the ROYAL SCOT you drive up in a BLAZE OF GLORY in a ROYAL COACH; whether you speed like the ARAB CHIEF on a MAGIC CARPET or in a WINDJAMMER under full sail through SPINDRIFT—on the SOUTHERN PACIFIC—in a CARAVAN—or, if needs must on a MAVERICK in RUSSET MANTLE or PINAFORE—or even walking down BUTTERCUP LANE matters not at all just so you ANSWER the ROYAL COMMAND of our GALANT LEADER.

CAPARISONed in PURPLE MAJESTY—in EASTER BONNET or SUNDAY BEST—in SULTANS ROBE and BROWN TURBAN—in SUNNY RUFFLES on CLOTH OF GOLD with a GOLDEN BOW—a RADIANT lady. **Come.**—In SHARKSKIN with PICOTEE and a RED BONNET be an ORCHID LADY on DRESS PARADE in CHANTILLY with an ORCHID FRILL and a jacket of SUMMER ERMINE. In APRICOT and MULBERRY ROSE,—in SABLE edged with BLACK AND GOLD—in GOLDEN RUSSET with GREEN SHADOWS—in AMARANTH or VATICAN PURPLE—in MISTY GOLD or ROSE or the BLUE SHIMMER of ICY BLUE. **Come.**

With a COMRADE or NEIGHBOR for a GOOD COMPANION you will find the BEAUTIFUL Wilmette gardens a SWEET ALIBI from the ACTION FRONT of business—the GOLD RUSH to fill the TREASURE CHEST with a FORTUNE in PRETTY PENNIES and PIECES OF GOLD as a DIVIDEND.

In each garden a GRACIOUS LADY and ESQUIRE (relic of CHIVALRY) will greet you with GAIETY and on every hand will be heard CALLING ME cries of HOWDY and CHEERIO and HI-HO in JOYOUS acclaim and HIGH SPIRITS as old friends greet one another with FULL MEASURE of PURE JOY on this GOLD MORNING of such a BLESSED EVENT.

AT DAWNING Mother Nature has dipped into her PAINT POT and made a GARDEN GLORY of color. By this path there is a RED GLEAM of BURNISHED COPPER at the foot of a MOONLIT MADONNA while across the way a GOLDEN TREASURE of



White Seedling on Pres. Cook's fountain Terrace.

YELLOW GLORY against the back drop of a MATTERHORN. Here there is a GLOW (of ORANGE or BLUE) or a WHITE RADIANCE as of NEW SNOW that leads the eye to the DEEP MYSTERY of BLACK WINGS against AZURE SKIES.

MARVELLOUS colors are a DREAM OF BEAUTY on every hand. We are lost in ADMIRATION.

As the DEPARTING SUN sets, the EVENING SKIES fade into AMETHYST TWILIGHT and then into NIGHTFALL with its STARRY MIGHT and MOONGLO the iris PAGEANT HIGHLIGHTS the GOLDEN HOURs.

The WHITE PERFECTION of WEDGEWOOD and CRYSTAL BEAUTY and SILVER LUSTRE, of FROSTED GLASS and TIFFANY bowls filled with JASMINE and JONQUILL GLEAM on the SOLID MOHOGANY set for our TRUE DELIGHT. Starting perhaps with HONEYBALL melons followed by COCK PHEASANT done to a GOLDEN BROWN with GRAPE SHERBERT and a CREAM TART or LEMON CHIFFON pie. Perhaps some COOL LEMONADE and CANDY would appeal, or the PINK MARVEL of a cake with a CALIFORNIA PEACH from the PEACH BOWL. Whatever may be CHOSEN it will be an ALADINS WISH fulfilled.

View from Dr. Cook's terrace in new garden. Two years from "prairie sod."

All who have the GOOD FORTUNE to witness this SPRING FESTIVAL, this EXTRAVAGANZA of DISPLAY and to partake of the WONDERFUL dinner and the LUXURY of good iris talk with fellow enthusiasts will hold in REMBRANCE this DAYS HOLIDAY as UNIQUE and PRECIOUS—a PERFECT DAY—an INSPIRATION toward HAPPY DAYS through SUMMERTIME and WINTER WONDERLAND til SPRING CHIMES again sound the FANFARE calling all to another JUNE QUEST of a SUMMER IDYLL of the iris.

And until then ALOHA and BEST WISHES for all GOOD FORTUNE and JOY in your garden at JOURNEYS END.

AMERICAN IRISES IN ENGLAND, 1946

H. J. Randall

■ The 1946 Iris season in England was almost the worst within living memory. For the previous twelve months the weather had behaved in topsy-turvy fashion; and throughout the season itself there were gales with heavy rains and winds. Irises are long-suffering plants but they cannot be expected to do their best in wintry conditions such as we had this summer. Many flower stems were blown over and broken before the blooms opened; and those that survived, either by their own strength or with the aid of stakes, frequently had their flowers torn to shreds. I mention these depressing facts to indicate that no varieties of Irises bloomed normally and could not therefore be properly judged on their performance this season.

Before the war there was a steady importation of American Irises into England, but owing to currency and transport restrictions comparatively few were sent over during the war. By various means, however, several scores of the newer American varieties were received in England in 1944 and 1945, and many of these bloomed in 1946. The two-year old plants mostly flowered with representatitve vigor, but the younger ones generally flowered on short stems. Although it would be premature and unwise to pass judgment on varieties grown under the abnormal conditions of 1946, it is permissible to make comments on the behavior of the very welcome ''visitors'' from U.S.A. In doing so, at the request of my friend, the Editor of your Bulletin, I propose to mention the flowers in their color classes. I will not go into elaborate details of the varieties as these are well known in the country of their origin. Many varieties which did not flower will not be named even though I saw them flowering to perfection in America only a few weeks or days before the English season.

In the white class there are three main sub-sections—pure whites, those with a blue influence, and those with yellow in the beard or haft—and the affections of Iris growers seem equally divided between them. Priscilla bloomed for the first titme in England this year and created such a lively interest that I predict a great future for it in this country. Matterhorn gave a plesant indication of what it can do, and Freedom, although on a short stem, showed how wide hafts can add great distinction to a flower. I formed a high opinion of this variety. Winter Carnival and Stella Polaris made nice clumps and will do well here. Snow Carnival grew lustily at Woking (the home of its seed-parent Gudrun) and received favorable comment from our President and many others. Snow Flurry also flowered for the first time and although on a short stem, it delighted us with its ruffled petals. We will cheerfully endure its top-branching habits in order to enjoy its ruffling. White Wedgwood did not like the weather but it gave several good spikes of bloom. Some people had been led to expect a blue beard on this variety and were almost disappointed not to find it. The beard is not blue but there is a touch of blue underneath which creates a rich effect. I rate White Wedgewood very highly. Franconia bloomed on so short a stem that it would be unfair to comment upon it.

The new yellows were not numerous this year, but those that bloomed pleased us. Berkeley Gold made a brilliant piece of coloring in the dull weather. Having also seen it in the blazing sunshine of Roanoke, I predict a great popularity for this variety. Two soft yellows from Staten Island, Elegans and Katy, made fine small clumps and will do even better when well established. I regard both of them as having good garden value. A single spike of Admiration opened perfectly and gave great promise, but a violent wind snapped it at the base of the stem. After that catastrophe, more care was taken of the new and rare visitors. Spun Gold will do better in warmer weather. Next year we hope to see Ola Kala, Jasmine, Rocket, Goldbeater and some of the other outstanding American yellows—and may the sun shine warmly for them!

Great Lakes will probably do as well in England as it does in America. It stood up to the cold weather of 1946 and made a brave show. Lake George pleased us once more with its flaring falls and clear coloring, but it was not so happy as it was in the warmer season of 1945. Azure Skies, with its broad falls and beautiful ruffling, was rated highly. The Admiral interested us because of its alleged likeness to Blue Ensign. It does not have such flaring falls as the English variety, but is of a similar color. Both are excellent. Tishomingo showed its strong substance, but it ought not to be called blue. It is a distinct lavender and has a useful place in the Iris border. I must not write too often about next year, but when I mention that we shall then hope to flower Alice Webb, Blue Refrain, Blue Valley, Chivalry, Cloud Castle, Helen McGregor, Lake Shannon and Sylvia Murray, you will see that we have a pleasant time ahead.

Plicatas are nowadays exciting great interest in England, mainly because of the new introductions of Cedric Morris. Well, America has much to offer in the plicata range, and I ought to be forgiven if I occasionally mutter to my English friends, ''You should see Suzette, Patrice and the rest of them!'' This year we had a good pre-view of what you have been doing amongst plicatas. Lady of Shalott is already a favourite, and it grows rampantly. Advance Guard, from California, was delightful until it was snapped off by a gale. Balmung and Ruth Pollock are getting on in years, but they are new to us and they do well here. Isle Louise is unlike anything slse in our gardens and it makes a fine clump. Magic Carpet, with its rose-red colouring, is going to be a fine addition to our collections; and Royal Scot, which has much more red in its make-up, will be equally welcome. Both bloomed nicely this year. Lovely Melody was attractive, and two others from Staten Island, Wonderful Hills, added their very dark shades to the plicata wardrobe, I do not yet know if all these new plicatas, both American and English, will live up to our expectations, but they are certainly adding great interest to the Iris garden.

Apart from The Red Douglas and Christabel we have seen few American red varieties of recent introduction, and even this famous pair is getting on in years. Ranger was impressive on its first blooming, but Red Amber lacked lustre in the dull weather. Other reds, such as Garden Glory and Edward Lapham, made good growth but showed wisdom in postponing their debut until 1947. In the near-reds we had some excellent flowers this year. A quartette of Whiting Irises, Arab Chief, Cedar Rose, Tea Rose and Veishea, did splendidly and were much admired. Arab Chief was perhaps my favourite because its soft colouring seemed to withstand the weather so well. At the very end of the season Adios came into flower and was unlike anything we have hitherto seen. It is an attractive flower but it will be put into the shade by its wonderful seedling Extravaganza. For the want of a better classification, I will put Orange Glow amongst the reds. Neither in New York nor in Woking did I see it bloom this year as well as it did in 1945; but in both places the weather was poor. Given proper conditions Orange Glow will, I believe, be very popular.

After seeing the amazing range of pink Irises grown by David Hall, I feel that in this country we do not know what a real pink is like. Flora Zenor and Loomis V.20 both bloomed well this year, but they have been termed "preludes to pink" and are now surpassed. Perhaps Spindrift is the nearest to a pure Iris that we have yet seen in England. Several people described it as the sensation of the year, and it certainly attracted great attention. Pink Ruffles, although not a pure pink, gave a welcome blaze of pink in the border, and we liked its ruffled petals. In 1947 we hope to bloom Cherie, Hall No. 46-10, and several more with colouring, and these will form a centre of interest.

In America you have a wonderful range of blends with various colours predominating. I find that over here men usually prefer selfs to blends, but ladies, particularly those with a good colour sense, love to have blends harmonising the more pronounced colours. Apart from Remembrance, which will, I think, grow well in England, we have not yet flowered any of your newer blends; and few people saw Remembrance because, having been planted in the previous November, it did not bloom until all other varieties had finished.

Amongst violets and purples, several of your established varieties did well. Deep Velvet, on a single flower spike, was perfect; but having seen a large clump at Spartanburg, I shall not be satisfied until I have a similar clump at Woking. Lord Dongan and Violet Symphony also grew splendidly and will soon become popular over here. Sable created tremendous interest because of its darkness and general refinement. I did not see Black Banner in bloom at Orpington but I am told that it was greatly admired there. Next year it will flower in several gardens together with, I hope, Black Forest. These almost black varieties will give richness to many of our English Iris Gardens, and I expect the hybridisers here will use them freely for breeding.

Almost every Iris garden in America now has its root or clump of Elmohr; but in England it is still in very few gardens. However, it grows and increases freely and will soon be widely distributed. With me it grows well and I look upon it as one of the great Irises of the world. Its relations, Mohrson and Ormohr, do not grow so freely and are not such outstanding varieties. Lady Mohr has yet to display her glories to us.

Whilst in America this year, I so admired the new varieties of

Dr. Kleinsorge that I grieve to say that Daybreak has so far failed to settle down in my garden. It seems shy and prone to rot. But Cascade Splendor, Chamois and several others from Oregon are now growing well and I am very much hoping to see them flower next year. We are in need of the warm browns and coppers which now enrich your gardens, and I predict a warm welcome for such varieties as Autumn, Copper Glow, Melodist and those mentioned above. Prairie Sunset will proably do splendidly in a normal English season. She tried hard this year, but the fierce winds were too much for her, as they were for most other flowers.

The only other varieties I need specially mention are Mulberry Rose and Louise Blake, both of which grew taller in Woking than they did in any garden I visited in America. It must have been the fond care which was lavished upon them! Louise Blake, grew 38 inches tall and needed no staking. Opinions differed about its merits when compared with those of Amigo, but most people considered it an improvement on the older variety. Mulberry Rose towered up to over 60 inches and it, too, needed no staking. What a striking variety this is! When the colour experts place it correctly it will be a great addition to our Iris borders.

1946 has given us many disappointments but also many pleasant glimpses of the things to come. In Iris growing it will, apart from its weather, merely be regarded as the prelude to 1947. In that year we shall hope to see growing in different parts of our country many of the newer American varieties. Having seen them growing to perfection in the country of their origin I am, perhaps, expecting too much from them in England. But out of so many there must be a goodly number to suit our conditions. A few of us, with parental loyalty, will perhaps still prefer our own seedlings and see in them virtues which are invisible to other eyes—there are people like this in every country; but the majority of Iris growers in England will, I believe, welcome and acclaim the latest introductions of our American friends and fellow enthusiasts.

Myth. Two centuries or more after Louis VII brought his draggled banners back from the disastrous Second Crusade, Charles V reduced the number of golden fleur-de-lis on the royal standard to three to represent the Trinity.—*L. H. Beck, Ga.*

THE CALIFORNIA SUBSECTION

Lena Lothrop

■ The Creator greatly favored the Pacific Coast when He planted there the beautiful irises that constitute the California Subsection.

They are among the loveliest irises in the world. They are small, ideal table irises, with graceful, wiry stalks rarely more than eighteen inches tall. The exquisite little flowers have flaring falls often slightly ruffled and they keep well after being cut. In poise they are airy and graceful. The colors run all the way from purples through lilac, mauve, lavender, violet, near blue, to pink and to yellow and from buff to white—many of them being beautifully veined.

The only reason they are not commonly grown is that they are difficult to transplant but Nature, to make amends for that shortcoming, supplies quantities of easily germinating seed and the young seedlings can be transplanted without difficulty from the seed-bed to their permanent location where they will increase and grow more beautiful with the years. These irises are hardy. They come from the mountains where every winter brings snow and freezing weather. I cannot understand why we, who grow millions (?) of bearded iris seedlings annually, should hesitate to plant a few seed of these choice wild flowers. They will come to bloom as quickly as bearded irises. When we plant bearded iris seed we know that 99 out of every 100, or perhaps I should say 999 out of every 1,000 seedlings will be discarded but when seed of the wildlings are planted we can feel assured that every seed will produce a gem. It is not even necessary to have fresh seed. In a test made last spring seed of *Purdyi* gathered in 1925 was planted and good germination resulted.

Seeds do not come true to their parents so if a certain variety is desired the only way to get it is by division. Plants can be purchased, and if they are moved at the right time and into the right soil Mr. Purdy says *Douglasiana* and *Purdyi* can be established about as easily as most perennials. The late Carl Purdy, writing in "The Garden," says that *Douglasiana* and *Purdyi* do best in heavy soil and handle easily but that *Californica, Hartwegii* and all other of these species growing in dry situations and loose soil require perfect drainage and are best moved dormant. Mr. Dykes writes again and again that these irises should be moved just as they start into growth after their dormant period,—here in California this might be in the fall following the first rains, but in colder climates not until spring. There is one requirement which all of these irises seem to demand and that is good drainage; most of them prefer limeless or acid soil.

Botanists have divided these irises into six or eight species and horticulturists have added to these divisions.

As source material for a study of this subsection I have used everything I could find on the subject including Hortus (Bailey); The Book of the Iris (1904) by R. Irwin Lynch, who was at that time curator of the University Botanic Garden at Cambridge, England; and Irises (1911); Handbook of Garden Irises (1924); and Dykes on Irises, all from the pen of W. R. Dykes who was until his death Secretary of the Royal Horticultural Society. As I worked on this subject I became interested to know how and when the irises had been found, where they had been sent for examination and determination and how they had been named. This led to correspondence with Mr. Elmer Purdy, who has long been associated with his father, the late Carl Purdy, famous botanist and collector of Ukiah, California. To Mr. Purdy I am deeply indebted for interesting letters from which I quote:

"When wild flowers first began to be noticed in California and in the West there were no herbariums, libraries or institutions where a plant could be analyzed and compared with previously named species to determine if it were new. There were few trained botanists anywhere in the West or in America. The first explorers were keen observers rather than botanists—they therefore sent specimens to the botanical institutions in Europe and later to the eastern United States."

"Mr. Sereno Watson, at Gray Herbarium, credited with naming more plants than almost any other person, never saw California nor, in fact, the regions from which most of his plants came. He was a skilled toxonomist, one of the most skilled of his day, and he rarely left his desk at Gray Herbarium, now part of Harvard University. He had the most complete herbarium in the Western Hemisphere and could compare the new specimen with the pressed ones of previously described species. Technically he was the discoverer even though he did not obtain the specimen in person, for it was he who had the facilities and knowledge and did determine that the species was new. In the early eighties the herbarium of the University of California began to grow, and material was sent there.''

''If a species is named after a person as *I. Purdyi,* and *I. Hartwegii,* the 'i' ending is supposed to mean that the person is the discoverer of the plant, but if the plant is named to honor a person, one who had nothing to do with the plant, the proper ending is 'iana' as in Douglasiana and Watsoniana.''

''The sad part of the native iris picture from your standpoint and mine (which is horticultural) is that some fifteen lovely forms, all quite distinct from a gardener's view, are grouped botanically, for the most part under the name *I. macrosiphon* with a few under *I. Douglasiana.* The botanists are correct for there are no botanical differences between them. *Californica* is a form of *I. macrosiphon.* It is really a lovely thing and different to the eye yet only Abrams recognizes it as a 'good' species. There are other lovely irises which merit some handle to identify them, but botanists can find no scientific ground for separation from existing species. It makes it bad for the gardener and for the dealer who would like to bring these lovely forms to him.''

It seems that until the whole family have been re-examined it cannot be stated positively what are ''good species.'' I have written to Dr. Randolph, the chairman of our Scientific Committee, in regard to this. It will not be an easy nor a short task, but I am hoping some qualified botanist will soon be eager to do this work.

J. N. Gerard, in his section on iris culture in Hortus, calls attention to the fact that California irises ''have not been fully separated botanically,'' but he lists as species *macrosiphon, Hartwegii, Douglasiana, bracteata, tenax, tenuis* and *Purdyi.* On other pages in Hortus this list is carefully described. R. Irwin Lynch, in his ''The Book of the Iris,'' gives the same list with descriptions both of which coincide with the list given by W. R. Dykes in his ''Handbook of Garden Irises'' except that Dykes does not recognize *Hartwegii* as species. Of it he writes ''it is uncertain if Hartwegii should rank as species . . .'' and he mentions a ''purple flowered form of it (that) is said to grow in the San Bernardino Mountains, *Hartwegii australis.''*

Most botanists agree that *Watsoniana* is a form of *Douglasiana.* Mr. Purdy claims the difference between them is apparent to anyone although botanically they may be the same. According to Mr.

Purdy Watsoniana has a wider leaf that tapers to a point and the foliage is more erect and rigid except when grown in heavy shade. The flowering stem has a densely crowded head with shorter pedicels than those of Douglasiana. The foliage of *Douglasiana* cascades outward instead of being erect and although there are even more flowering stems there are not so many flowers in each head so the effect is less crowded.

I. chrysophylla is not mentioned in Hortus nor is it mentioned by Lynch and in all of Dykes' writings he gives it but one brief notice which appears in ''The Gardeners Chronicle'' in July 1910. He writes ''*I. chrysophylla* from Oregon looks a picture of ill health and yet, since it flowers annually I am beginning to think that its yellow leaves are enough to distinguish it from *macrosiphon,* with which it agrees in many ways. The stem is short, but the flowers are borne upon a long tube over two inches in length. They are of creamy white, with a few golden veins in the center of the falls that seem to sparkle in the sun.'' As Mr. Dykes does not include this iris with described species in 1924 when his Handbook of Garden Irises was published he evidently came to the conclusion that it was a form of *I. macrosiphon.*

Following are descriptions, in simple language, of the irises generally accepted as species:

I. douglasiana. Determined and named by the English botanist, Herbert, in 1841. Distinguished by dense masses of foliage that is practically evergreen. The leaves turn dark red as they die. Branched stems bearing numerous heads of two or more flowers each. Short linear tube above long, triangular ovary which tapers at either end. Smooth, round seeds. Flowers come in all shades from purple through yellows to white. Plant in heavy soil in sun or half shade. Move when new growth begins. This is the least difficult of the species to transplant.

I. tenuis. Determined by Watson in 1882. Distinguished by tufts of leaves which appear at a distance from each other because of creeping rhizomes. Branched stem (Dykes says *Douglasiana* is the only other species in this subsection with branched stem). Long perianth tube. Found in the fir forests of Oregon. Color white with possibly fine purple veins and a touch of yellow in the center of the falls. Plant in sand and leaf mold in partial shade. Move when dormant.

I. bracteata. Watson 1886. Distinguished by thick leathery leaves produced singly and not in fan-shaped tufts. Foliage scanty. Each sprawling stem bears a single head of two to several flowers in succession. Short, broad, funnel-shaped tube. With *Purdyi,* this is the only species having a stem with *closely sheathing bracts.* Color yellow, conspicuously veined maroon. Difficult to establish except in sharply drained acid soil.

I. tenax. Douglas 1829. Distinguished by dense clumps of narrow foliage from which spring many erect stems each bearing one or two flowers in succession. The pair of spathe valves, instead of coming from the same point on the stem as with other species, are set an inch or more apart from one another on the stem. Tube is broad, funnel-shaped and short. Foliage deciduous. Color variable. Plant in sandy loam, cover with sphagnum, keep moist. In sun or light shade. This is a desirable species but according to reports difficult to move.

I. purdyi. Eastwood 1897. Distinguished by scanty foliage; the central leaves of each tuft are darker in color than those outside. All leaves very glossy green. Unbranched stem is hidden by bract-like leaves and bears two flat flowers in succession. Some flowers resemble *bracteata,* but can be distinguished by the *long* (more than an inch) *tube* and by its straight stigma lip. In *bracteata* the stigma lip is tongue shaped. Seeds are cubical. Color varies. Fairly easy to grow and choice.

I. macrosiphon. Torrey 1857. Distinguished by short deciduous foliage which dies to the ground in early summer. Very long perianth tube which is often three inches long. Short stem on which are one or two narrow reduced leaves. Color variable but in all cases veined with a deeper shade of the same color.

Mr. Purdy writes that under this species are several forms of distinct habit and appearance with almost evergreen foliage and more attractive flowers than the type. Among these is *californica* with flowers of different colors.

Dykes lists another species, *I. tenuissima,* which he himself examined in 1912 from herbarium specimens sent to him from the United States National Herbarium at Washington. These specimens had been collected by H. E. Brown in 1897 near the Pit River Ferry in Shasta County. Later Mr. Dykes grew and bloomed this iris from seed gathered for him by Miss Alice Eastwood in the same locality from which the original herbarium specimens came. Dykes says of it that it can be distinguished from other California irises by ''the extreme fineness of the segments of the flower and by the peculiar character of the spathes. The stem is not sheathed in bract-like leaves as is that of *purdyi* with which it might be confused. Moreover the flowers are much smaller with very narrow segments. The white falls are veined with yellowish brown and have a waved edge. The standards are pointed, white with a few faint yellow veins runing up the center. The longer stem (about a foot), relatively shorter tube and the broad rounded spathes seem to separate *I. tenuissima* from *macrosiphon.''* He remarks that this iris has a ''delicate constitution.'' Mr. Purdy comments that *I. tenuissima* has been mentioned by both Mr. Jepson and Mr. Abrams, botanists, and that while it may appear to have a delicate constitution it is really a strong grower. He gives the color as a ''soft lilac-blue veined plum.'' I suppose it is possible that here are two species or two forms of the same species.

I went north by Greyhound Stage through California and into Oregon one spring during iris season. Above San Francisco the wild irises began to appear—mostly in white and pale colors. At Crescent City, in order to reach Grants Pass, it is necessary to change stages, cross the Siskiyou Mountains through giant redwoods and follow, part of the way, the winding course of the swift and exciting little Smith River. It was not my first trip over this beautiful highway so I knew about where wild irises would be seen. Our considerate driver on this particular day allowed us to get out among the big trees, the bride and groom were photographed, and later as we approached particularly lovely clumps of white azaleas the driver called to us to watch for them, and again we were told to look down the mountain-side where Nature had done a breath-taking job of landscaping, using pink rhododendrons intermingled with bright blue wild lilacs. Then, in the open woods, came masses of irises in shades of mauve. When we reached Kerby the irises were all yellow, a buff yellow heavily veined with maroon. This is *Iris bracteata.* Although I remained here for some time I found nothing but *bracteata* and the people living there said it was the only variety in that locality. Mr. Purdy, however, writes that across the Illinois River at Kerby is a colony of *I. chrysophylla* (a form of *macrosiphon*). I also spent a few days at Glendale, north of

Grants Pass. Here the only iris that I found, and the only iris the residents knew about, was a delicate white iris of erect habit with lush green foliage. It grew in the edge of the fir forests, *I. tenuis.* I pressed one stem but the flower was of such sheer filminess that by the time I reached home the flower had vanished. Farther north at Eugene, in the open, the railroad banks were gaily decorated with drifts of an intense blue iris which was the only color seen there, *I. tenax.*

In regard to these colonies of irises of one color Mr. Purdy has written ''Because most of the California irises have certain definite soil requirements, and perhaps as much environment requirement, one usually sees each species by itself, but there are exceptions. In one place where *I. longipetala* occupies a small mountain swamp, *I. californica* abounds on all slopes margining the swamp and continues for several miles in one type of soil in the open while in the shade less than fifty feet away is a considerable colony of *I. Douglasiana.* In another location *I. Purdyi* and *Watsoniana* grow on the same slope together and in this spot are the only natural hybrids I have found in all my travels. In Marin County *I. macrosiphon* grows in little open glades with *Douglasiana* in the contiguous woods.''

I have raised from seed and bloomed *I. bracteata, chrysophylla* and *Purdyi. Purdyi* was the loveliest and most satisfactory. It increased well by rhizome and multiplied by seeding itself and it bloomed freely. This iris is supposed to be yellow but mine was white with an almost fuchsia shade laid over the falls. It won blue ribbons every year. Although it was lifted with all possible care when my garden had to be moved it did not survive.

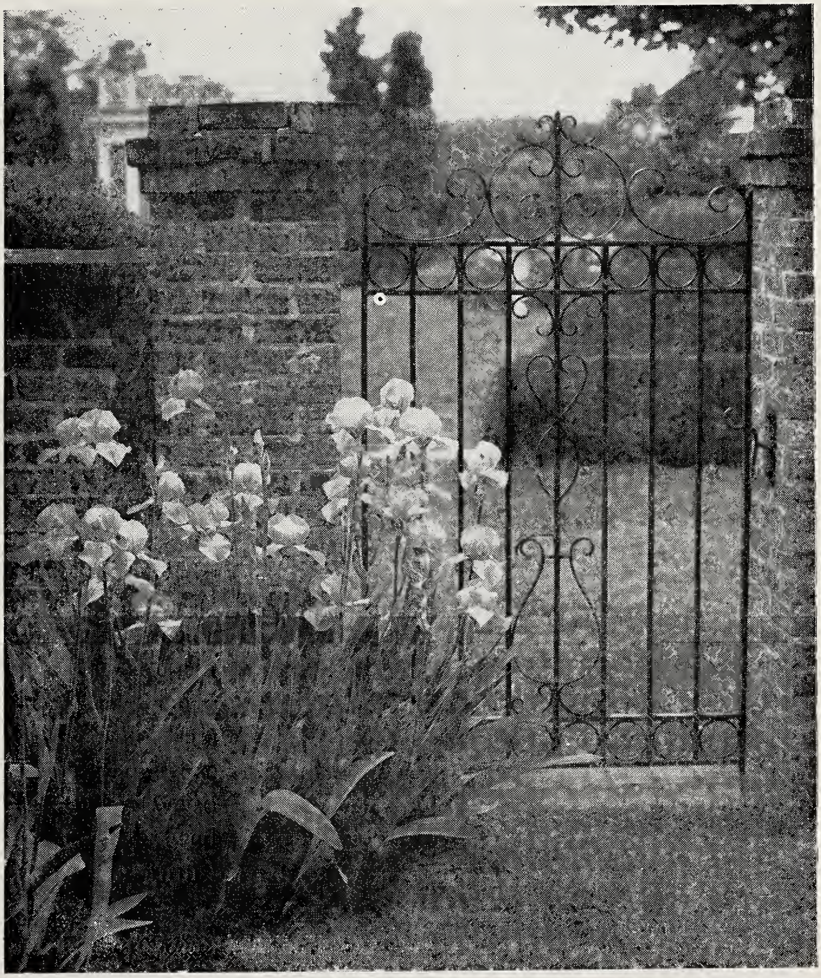
Seed of certain of these irises can be obtained from the Carl Purdy Gardens at Ukiah, California, and from Mr. Rex D. Pearce of Moorestown, N. J. There may be other dealers who list them, but I do not know of any.

Mr. Purdy also supplies plants, and the Lyon Iris Gardens, 7041 Woodman Ave., Van Nuys, California, list a few selected seedlings of *Douglasiana.*

SWING BACK TO THE BLUES

By Jesse Wills

In a way this title is a misnomer because we have never left the blues. The last two or three years have been marked, however, by several outstanding introductions, taking us considerably closer to true blue, which have to some extent overshadowed new Irises of other colors. This has led in turn to a fresh burst of interest in growing and breeding for blues.



Great Lakes in the Wills garden, Nashville.

I am confining myself mainly to the light and medium blues, although I realize that these are elastic terms, and the same Irises may be and often are classified as either light or medium, or medium or dark. This confusion is perhaps inevitable since the tones shade into each other so. In the deepest velvety blues and violets, however, there has not been so much recent progress and they are not so outstandingly blue. I am not attempting to write a complete treatise on the blues; this is to be a mixture of reminiscence and meditation touched up only by a little research into parentages.

It is natural that we got somewhat away from the blues for a while. The early breeders started with blue-lavenders and when modern breeding began they were the strongest color class. A seedling patch twenty years ago was a mass of blue and purple with only an occasional note of another color. Of recent years they have tended to be masses of pink and copper blends, or reds, and whites, and yellows, with the blue tone only occasional. It has been time for a trend back the other way. That there has been a revival of interest in blues is shown by recent registrations. In those for 1946, for instance, there were forty-six blues of one sort or another.

Although I started growing Irises about 1933, I did not begin to order good, comparatively new varieties until two years later. I have just looked over again the catalog of a well known dealer from whom I ordered first in 1935. It listed twenty-two light blues and seventeen medium. Only seven of these are still listed in the latest catalog of the same dealer. Of the 1935 listings a large number were pallidas; Princes Beatrice, Mary Barnett, etc. Of the others, mentioning only those that I became familiar with, a number were foreign Irises: Souvenir de Loetitia Michaud, Sensation, and Aline. Then there was Summer Cloud, from Chancellor Kirkland, Santa Barbara, and the two giants, Paulette, also foreign, and Buechley's Giant. All these I have liked in varying degree. Sensation, for instance, was strictly that for me when I first bloomed it. I recognized its strappiness but worshipped the blueness of its color, its flaring horizontal form and its fine substance. It shows up in the parentage of many fine later blues. Santa Barbara, a better Iris because it is not strappy, I also liked so much that I kept it in my front planting until two years ago. It also has been a good parent as will appear in the pedigrees below.

The newest Irises in the 1935 catalog were representatives of a remarkable group of blues that had been introduced about the same time shortly before. In 1932 had come the tall, medium, Sierra Blue, whose parentage was Souvenir de Mme. Gaudichau X Santa Barbara. It won immediate recognition and got the Dykes medal in 1935. Shining Waters, Missouri, Gloriole, and Castalia were all introduced in 1933. All were different and all were good. All have been used for parents, the first three widely and successfully.

Shining Waters came from an involved parentage typical of Dr. Essig and was as popular in the light blue class as Sierra Blue has been in the medium except for the fact that a slight tenderness has hurt it in some regions. It got an H.M. in 1934 and an A.M. in 1935. Missouri, which Mr. Grinter obtained from Blue Ribbon X Sensation, proved itself to be a fine, sturdy, medium blue that would stand up under high winds, and has been very popular, particularly in the Midwest. It got the H.M. in 1933, the A.M. in 1935, and the Dykes medal in 1937. Gloriole, from Mr. Gage, came from Souvenir de Loetitia Michaud X Queen Caterina. It was different from all the others, being very pale, ruffled, and frosty, and deservedly won an H.M. in 1933 and an A.M. in 1935. In the opinion of most judges it has been Mr. Gage's best Iris even though Rosy Wings won the Dykes. Castalia (Oriflamme X) was introduced by the Williamsons in 1933. While it got the H.M. in 1936, for some reason it never attained quite the popularity and recognition it deserved. Being a pallida type, it was not the show Iris that the others were, but it was and is a fine garden Iris that can be depended on to increase and bloom regularly with a minimum of care.

After this outstanding group there was somewhat of a lull in the blue class for several years, although there were a few excellent blue introductions: Anitra, for instance, introduced in 1936 by the Sasses, who previously had brought out two good blues, Blue Hill and Blue Monarch. Anitra is pale and came from two whites, Purissima X Oriana. In the same year, 1936, Tom Williams, of Nashville, brought out Waverly, a very fine blue of a tone between light and medium which had very little lavender in it. It has been well liked, although some people have preferred Mr. Williams' Belmont, a darker blue. It is interesting that Mr. Williams in 1946 gave the name Permanent Wave to a striking seedling from Waverly. It is not oustandingly blue, but has remarkable substance with absolutely horizontal falls. In 1935 Dr. Grant brought out

Exclusive, coming from (Sensation X) X (Dominion X), which achieved considerable distribution and popularity.

The next great landmark in the breeding of blues came with the introduction of Great Lakes in 1938. It was introduced at a comparatively modest price with very little fanfare. It was the origination of Mr. Cousins, a Canadian breeder, who was not widely known. The breeding was involved, going back to Conquistador on one side and Dominion on the other. It immediately won recognition, however, for its outstanding quality and grew in fame and favor through the years. It got the H.M. in 1939, the A.M. in 1940, and the Dykes medal in 1942. It stood in ninth place in Kenneth Smith's 1941 Symposium, it was second in this in 1942, and ever since this date it has been in first place. It has won recognition everywhere for its clear blue tones, its growing qualities, its height, its substance, and its branching. It seems to do well almost everywhere, except perhaps in some sections of the Midwest where I have heard some people say they could not see any improvement in it over Shining Waters. In most sections, however, the opinion is otherwise. Now it is winning acclaim in England. It has also proved itself to be a very fine parent. Blue Diamond, from Col. Nicholls, came out also in 1938. Its parentage was Miss Willmott X Santa Barbara. It is a smooth light blue, but did not prove to be a particularly good grower.

After 1938 began another lull of a few years. Some blues were introduced which were good, but none of them seemed to represent a very marked advance over previous ones.

In 1941 two light blues of Mrs. Whiting's were introduced: Sea Blue, coming from Missouri X Shining Waters, and Frosty Blue, coming from Gloriole X Shining Waters. In 1942 Mrs. Whiting brought out Blue Zenith, a very nice vigorous growing medium blue which came from Blue Hill X Sierra Blue. In 1941 Dr. Grant brought out Blue Delight, and in 1942 Sparkling Blue. Both are light blues and both are good. I have grown them and liked them, but for some reason they never received much distribution. The first came from Gloriole X Shining Waters and the second from Shining Waters X Aline. In 1942 Chicory Blue, from Mr. Geddes Douglas, was introduced. It came from Shining Waters X Stella Polaris, a fine white of Kenneth Smith's, which in turn came from Easter Morn X Violet Crown. Chicory Blue is well named, and is a big, fine Iris with good branching. Unfortunately it has proved tender in some sections.

This brings us down to the newest group—the outstanding introductions of the last two or three years plus a few that will be introduced next year. These may be divided for discussion into two groups: the children of Great Lakes and those coming from other breeding.

Great Lakes has been very widely distributed and has been used a great deal in crossing with very good results. It is not always easy to cross, and some people have been more successful with it than others. It is fertile both ways, but one can get takes more easily by using its pollen than by trying to set seed on it. That it is a good parent is proved conclusively by Sylvia Murray, Lake Shannon, Chivalry, Distance, St. Regis, and Blue Valley, to name only Irises that I have seen and know.

Sylvia Murray, from Mr. Norton, was introduced in 1944. It came from Great Lakes X Shining Waters. It is pale, but it is really blue—not a bluish white. It has a big flower of nice form that is tailored rather than ruffled, and has the good branching and good growth of its parents. It was not well known at first, but won an Honorable Mention in 1946. Chivalry, a medium blue introduced in 1944, came from Missouri X Great Lakes. All the blues coming from this cross were good, but Chivalry was by far the best and I gradually discarded all the others except one which I have kept because it bloomed so late. Lake Shannon was brought out by Mr. DeForest in 1945. It came from (Seedling from Loetitia Michaud X Jean Cayeux) X Great Lakes. The presence of Jean Cayeux in its ancestry makes it interesting for breeding. It also is a medium blue, very close to Chivalry in form and color. Some people have been hesitant to use Great Lakes in breeding because they do not like the texture veining which marks the flower. This characteristic, however, does not usually carry over into its descendants. The veining did carry over into Lake Shannon but in my opinion at least does not detract from it. Lake Shannon also won an H.M. in 1946. Distance, from Mr. Paul Cook, was introduced in 1946. It came from (Castalia X Santa Barbara) X Great Lakes. It is a smooth, silvery, light blue. I have not bloomed it as yet, but liked it when I saw it as a seedling in Paul Cook's garden in 1945. It got its H.M. the year it was introduced. St. Regis, from Mr.

Caldwell of Nashville, which will be introduced in 1947, is the palest of the group. It just has enough tint of blue to keep it from being classed as a blue-white. It has very stiff substance and fine semi-flaring form. This came from Birchbark X Great Lakes. Blue Valley, from Mr. Kenneth Smith, which also will be introduced in 1947, is the most outstanding of the finest group of seedlings I ever saw coming from one cross. All the many visitors who were privileged to see this row of blues blooming for the first time in Mr. Smith's garden in 1945 will long remember them. Two others besides Blue Valley have been named, Caribbean and Neighbor. The parentage is Mr. Smith's Lake George X Great Lakes. The ancestry of Lake George is uncertain, but it possibly came from Mme. Ulmann.

Among the distinguished new blues that do not come from Great Lakes, Azure Skies was brought out by Mrs. Nesmith in 1943. It probably belongs with an older group, however, for Mrs. Pattison, who originated it, had grown it for some years. Its parents were two whites: Crystal Beauty X Snowking. It is a pale lavender-blue with lovely ruffled flowers, and got an H.M. in 1943 and an A.M. in 1945. Blue Rhythm, introduced in 1945, is the climax, so far, of Mrs. Whiting's breeding in this color. It comes from two of her own seedlings: Annabel X Blue Zenith. The parentage of the last has already been given, while Annabel came from Blue Triumph X Aline. Blue Rhythm is a silvery, Cornflower blue of fairly deep color, toward the dark side of the light blues or the light side of the mediums. It got its H.M. promptly in 1945. I only saw this as a first year plant in my garden last Spring, but I was so impressed with it that I am looking forward to seeing it again in a clump. It is a tailored flower with beautiful form and good substance. Helen McGregor, introduced in 1946, was widely known and discussed beforehand because it seemed to others as it did to me the truest blue that had been achieved as yet. It is very pale and very blue with little if any trace of violet or lavender. Its big flowers are delightfully ruffled so that it makes a wonderful clump. It came from Purissima X Cloud Castle. This last is a good lavender-blue of Dr. Graves' and it in turn came from Sensation X Gloriole. All who know Helen McGregor are looking forward to seeing its seedlings. It is an Iris with a great future, and it is significant that it won by far the highest number of votes for H.M. in 1946. Dr.

Graves deserves our congratulations and thanks for giving it to us.

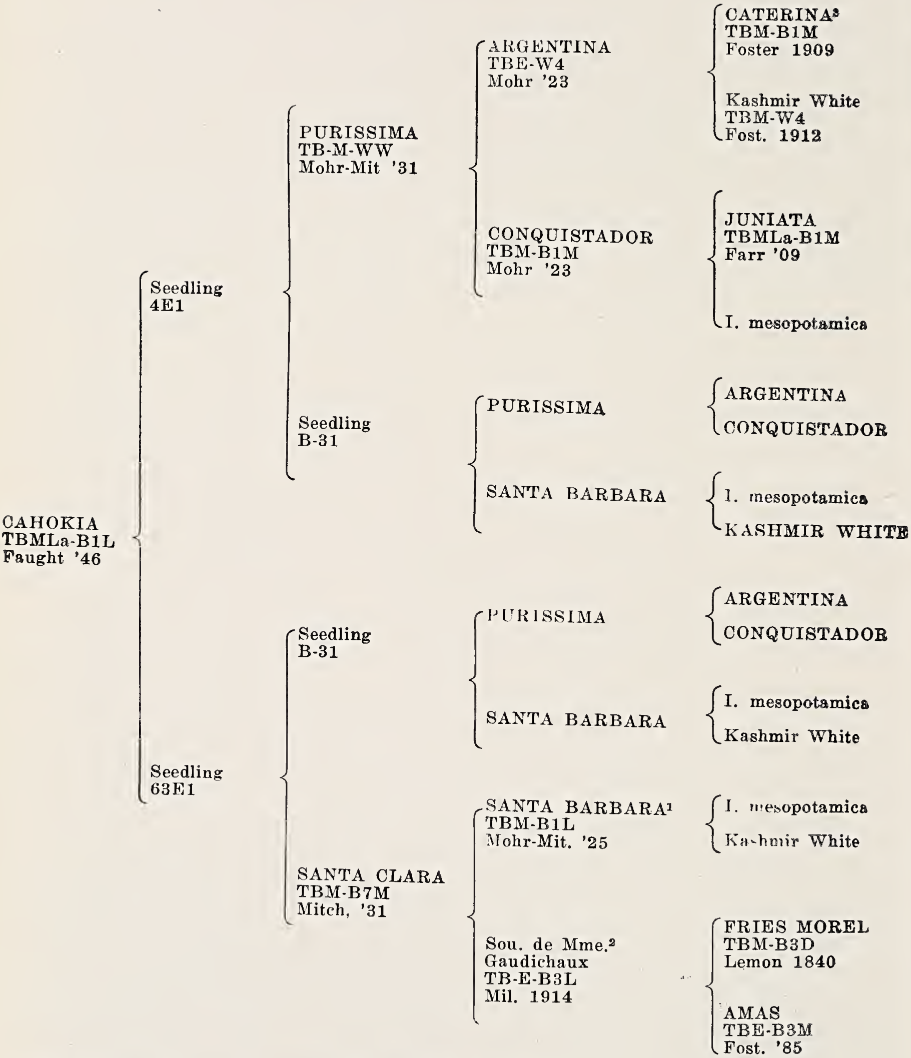
In studying the parentage of all these blues we find that they came from either crosses of two blues, or a blue and a white, or two whites. We notice also the constant reappearance of the same names: Sensation, Santa Barbara, Gloriole, Shining Waters. In using whites better results seem to come from the cool whites like Purissima than from the warmer whites with a lot of yellow in them.

Cahokia, originated by Mrs. Faught of Illinois, is another new light blue that has been highly praised. I haven't seen it and will not bloom it until next Spring. Its parentage is so interesting that Mr. Geddes Douglas published it as a chart which appears accompanying this article. It represents almost entirely a repeated doubling up of Purissima X Santa Barbara. The surprising thing is that it and a sister seedling, Pierre Menard, are both hardy in Illinois.

As great as have been the recent improvements in blues there is still room for more. We need to get blues without even a hint of lavender in the sunlight. We need to get clearer or truer blues in the darker shades; to get more intensity into them without so much graying. We need new combinations of blue colors; good blue bicolors with very pale blue standards and darker blue falls—not neglectas or near amoenas, but an Iris for instance with the standards of Helen McGregor over the falls of Blue Valley or Chivalry, or the standards of Sylvia Murray over the falls of Blue Rhythm. We have not yet started on the greenish-blue or turquoise shades, although they should be possible. It may take a new approach to get these, perhaps using recessive light yellows with the purer blues, or perhaps we will need to get a green Iris first.

We need and love the blues we have, new or old, whether they are truly blue or not, for the lavender and wistaria shades like that of Tishomingo, for instance, can be very lovely. Many are needed for garden use to give a feeling of distance, to soften or set off the other colors we are getting. The cool shades of these flowers come to mind when we think of an Iris, and seem to go with the grace and symmetry of the Iris form. They personify the calm beauty of a late Spring evening.

FAMILY TREE—IRIS CAHOKIA



- CAHOKIA TBMLa-B1L Faught '46
  - Seedling 4E1
    - PURISSIMA TB-M-WW Mohr-Mit '31
      - ARGENTINA TBE-W4 Mohr '23
        - CATERINA[3] TBM-B1M Foster 1909
        - Kashmir White TBM-W4 Fost. 1912
      - CONQUISTADOR TBM-B1M Mohr '23
        - JUNIATA TBMLa-B1M Farr '09
        - I. mesopotamica
    - Seedling B-31
      - PURISSIMA
        - ARGENTINA
        - CONQUISTADOR
      - SANTA BARBARA
        - I. mesopotamica
        - KASHMIR WHITE
  - Seedling 63E1
    - Seedling B-31
      - PURISSIMA
        - ARGENTINA
        - CONQUISTADOR
      - SANTA BARBARA
        - I. mesopotamica
        - Kashmir White
    - SANTA CLARA TBM-B7M Mitch, '31
      - SANTA BARBARA[1] TBM-B1L Mohr-Mit. '25
        - I. mesopotamica
        - Kashmir White
      - Sou. de Mme.[2] Gaudichaux TB-E-B3L Mil. 1914
        - FRIES MOREL TBM-B3D Lemon 1840
        - AMAS TBE-B3M Fost. '85

[1] See BULLETIN 9, page 6. [2] Parentage of this is in doubt.
[3] The parentage of Caterina is CYPRIANA X PALLIDA.

GENERAL GENETICS PROGRAM

In the spring of 1946 a program of crosses was distributed in mimeographed form to members who had indicated in their replies to Questionnaire 2 issued by the Scientific Committee that they were interested in hybridizing. When this program was first organized it was not anticipated that an outline of suggested crosses would be issued at yearly intervals. The seedlings from the 1946 crosses will not bloom until 1948 and the scientific value of the program cannot be determined until the seedling data have been analyzed. However, it seemed desirable to issue a program for 1947 to supplement last year's results and obtain additional new information.

The primary objective in arranging these programs is to obtain information of value in genetic studies of flower color. However, the possibility of obtaining improved types was not ignored. Wherever possible varieties of proven value in breeding were selected for the genetic tests, some of which may produce new combinations of colors and more vigorous disease resistant types.

Cooperators are urged to select for crossing within the various subdivisions of the program varieties that are well adapted to their particular soil and climatic conditions. This will insure a higher percentatge of bloom from seedling progenies and increase the possibility of occurrence of improved types of garden value.

SUMMARY OF 1946 CROSSES

Cooperators in the 1946 general genetics program submitted records of 969 crosses, of which 553 were fertile and produced seed. The results of representative crosses in each section of the program are given in this summary. The nature of these results indicates that the compatibility of individual varieties to their own pollen and in hybrid combinations cannot be determined by making one or a few pollinations in a single locality. Adequate tests should include more than one locality and probably also more than one season. Included in the summary are the numbers of flowers pollinated, the number of pods formed and the total number of seeds obtained from direct and reciprocal crosses made by individual hybridizers. For example, of the three persons who made the cross Fair Elaine x Golden Treasure the first made two pollinations one way and three the other way but no pods were formed; the second pollinated one flower and obtained forty-nine seeds; the third pollinated two flowers unsuccessfully.

A. *Crosses that may set seed freely*

Dymia x Blue Peter 4-2-63, 3-0
Fair Elaine x Golden Treasure 2-0, 3-0; 1-1-49; 2-0
Jean Cayeux x Radiant 3-0; 1-1-34; 7-3-60, 5-0
Los Angeles x Matterhorn 3-0; 4-4-206; 3-2-77; 4-1-20
Wabash x Great Lakes 4-0; 6-1-59; 1-1-52; 1-1-49; 1-1-36; 4-1-27, 4-0; 6-3-97, 2-1-10, 4-0; 2-0

B. *Crosses that may be difficult to make*

Amigo x City of Lincoln 10-0, 3-0; 2-0; 3-0
Angelus x China Maid 5-0, 4-1-21; 3-0
Shah Jehan x Wabash 2-0; 4-0; 4-0; 2-0, 3-0; 3-2-19; 3-0
Wabash x Frank Adams 6-0, 7-0; 4-0; 10-0; 3-0; 6-0; 2-0

C. *Intercrosses of light and medium blues*

Gloriole x Great Lakes 1-1-36; 6-0, 4-0; 5-0, 4-0; 2-0
Gloriole x Shining Waters 4-3-65, 4-3-95
Missouri x Great Lakes 1-1-33, 1-1-50
Azure Skies x Great Lakes 6-5-244
Sierra Blue x Shining Waters 6-0, 6-6-242; 1-1-33
Shining Waters x Great Lakes 1-1-60; 4-2-107; 1-1-29
Sierra Blue x Great Lakes 4-0
Blue Triumph x Great Lakes 2-2-85
Blue Zenith x Great Lakes 2-2-64

D. *Crosses for pinks and tangerine beards*

Airy Dream x Dog Rose 6-2-25
Rameses x Flora Zenor 12-0
Venus de Milo x Jeb Stuart 4-0, 17-3-51

E. *Crosses for recessive whites*

Elsa Sass x Tiffany 2-2-39; 4-0
Elsa Sass x Matterhorn 4-4-96, 4-4-105
Elsa Sass x San Francisco 3-1-7; 4-0
Orloff x Elsa Sass 3-2-50
San Francisco x Matterhorn 2-2-55; 4-2-45
Los Angeles x Matterhorn 3-0; 4-4-206; 3-2-77; 4-1-20
Tiffany x Matterhorn 1-1-41

F. *Crosses of amoenas, neglectas, bicolors, variegatas* (*See also B*)

Wabash x Frank Adams 3-1-42
Wabash x Mary Vernon 6-1-26, 3-3-31
Wabash x Sable 1-1-26
Wabash x Claribel 1-1-71, 1-1-33; 4-4
Wabash x Mme. Louis Aureau 1-1-53
Wabash x Hall 42-07, 1-1-41
Wabash x Matterhorn 1-1-41; 10-10-370, 6-6-223
Amigo x Matterhorn 4-1-18
Amigo x Wabash 5-1-31
Amigo x Bay State 1-1-51
Amigo x Frank Adams 6-0
Amigo x Great Lakes 4-0
Shah Jehan x White Valor 1-1-30
Shah Jehan x Shannopin 2-2-58
Elsa Sass x City of Lincoln 1-1-16, 2-0

G. *Self-Pollination*

Arctic 1-1-44
Bronze Image 1-1-47
California Gold 4-2
Christabel 4-0
Crown Jewel 4-2
Dauntless 4-0
Frank Adams 4-0
Francheville 1-1-18
Golden Hind 1-1-20
Golden Majesty 3-0
Gudrun 4-0
Katy 8-0
Louvois 3-0
Matterhorn 6-1-13
Midgard 4-0
Mount Cloud 3-0
Mount Washington 2-2-83
Naranja 4-0
Nene 1-1-49
San Diego 1-1-13
Mrs. J. L. Gibson 20-0
Tiffany 3-2-32
Touch-O-Blue 1-1-38
Violet Crown 20-0

Different results frequently were obtained by different hybridizers who attempted the same cross. The cross Shah Jehan x Wabash failed for 6 of the 7 persons who attempted it, while the lucky seventh obtained 2 pods from only 3 pollinations. Similarly, 2 of the 4 persons who attempted the Jean Cayeux x Radiant cross obtained no seed set from 8 pollinations while the other 2 obtained 4 pods from an equal number of pollinations. This lack of uniformity in the results obtained by different hybridizers may have been due to weather conditions, faulty technique, the use of varieties not true to name, or other causes. When the seedling records become available and crossing results from more than one season are compared we should know more about the influence of genetic factors and climatic conditions on the crossability of iris.

The failure on the part of a significant number of persons to obtain any seed set from such crosses as Gloriole x Great Lakes, Amigo x City of Lincoln and Wabash x Frank Adams and the successful crossing of Wabash x Matterhorn, Wabash x Great Lakes and Los Angeles x Matterhorn indicate that certain crosses are more compatible than others. The same applies to self-pollination, although these data are not as extensive as might be desired. Among the amoena and variegata crosses certain combinations were successful but many were not. Intercrosses of plicatas and various combinations of plicatas with Matterhorn and Elsa Sass were relatively easy to make.

In contrast to the rather high percentage of failures among the recorded crosses may be cited certain unusual successes which were not included in the summary. The triploid variety Frieda Mohr ordinarily sets little or no seed, but successful crosses with Azure Skies and Angelus were reported. In combination with tetraploid blues, seed was obtained from Princess Beatrice, one of the best of the old diploid pallidas which has desirable characteristics that are lacking in most modern irises. Princess Beatrice has the reputation of being a notoriously poor seed producer. Under certain conditions the Mohr family of irises apparently sets seed fairly readily, as there was one report of more than 200 seeds produced by a limited number of crosses involving William Mohr and closely related varieties.

A considerable number of small lots of seed were sent in to be grown by the committee. Most of these were from special crosses and were accompanied by requests that the seed be germinated by the embryo culture technique. Approximately 2,000 seeds from crosses made in 1946 are being embryo cultured for cooperators. Offers to grow additional seedlings were received from various sources. Sample lots of seed were sent to Mr. Blanton in Georgia to test the feasibility of having seedlings produced in the South for transplanting to northern gardens in late April or May. This should result in much better seedling growth the first year and a significantly higher per cent of seedling bloom the second year.

1947 General Genetics Program

This outline consists of a brief description of genetic problems in need of further study and lists of varieties suitable for particular experiments. In planning specific types of crosses, cooperators should select varieties that are adapted to the climatic and soil conditions of the locality in which the crosses are made. This will result in the production of seedlings of better average quality and a higher proportion of bloom. Ordinarily, within a given group of varieties suited to a particular purpose, genetic data can be obtained more satisfactorily from vigorous, disease resistant varieties than from inferior varieties of similar genetic constitution.

A. *Recessive Whites*

The varieties Matterhorn, Jake, Miss Bishop, Patricia and Snow Velvet, obtained by the Sass brothers from intercrosses of plicatas, may represent the beginning of a new race of true breeding recessive whites. Others are on the way. Noted in 1946 seedling plots were 6 whites and 27 plicatas obtained by Jesse Wills from Blue Shimmer x Snow Crystal, 2 whites and 80 plicatas or near plicatas from Kenneth Smith's Valentine x Acropole, a Cayeux plicata, and 25-30 plicatas from Carruth's cross of Los Angeles x Matterhorn. Admittedly, some of these whites may be genotypically plicatas that failed to exhibit the character, but the segregating progenies that I have seen strongly suggest that some of them at least carry only recessive alleles of the plicata gene. These whites should be intercrossed and selfed to see if they breed true for white. They should also be backcrossed to Blue Shimmer, Snow Crystal, Valentine and other plicatas with white background to obtain backcross ratios and additional whites.

Plicatas of diverse parentage, such as those of Cayeux and the Sass brothers, should be intercrossed to see if the same or different plicata genes are involved and if they segregate recessive whites. Suggested crosses: Blue Shimmer and Los Angeles x Althala, Acropole, Seduction.

Many of the old diploid whites such as Chartier, Snow White and Solitaire undoubtedly are recessive whites. In fact it has not been established that dominant whites occur among the diploids. When crossed with true breeding pallidas these diploid whites produce only pallidas in F_1. The same type of behavior would be expected from the tetraploid recessive whites, provided the blues to which they are crossed are homozygous; if the blues are heterozygous, recessive whites will appear among the progeny in proportion to the number of white genes transmitted by the blue parent. Since the modern blues and the whites of plicata parentage are not closely related crosses such as Matterhorn and Snow Velvet x Great Lakes, Chivalry, Helen McGregor, Sierra Blue, and other light or medium blues might produce exceptionally vigorous blues and occasional whites of unusual distinction.

B. *Yellows combined with recessive white*

Yellows of exceptional clarity, as well as whites, have originated from the yellow ground plicatas. Well known examples of such yellows are Elsa Sass, Golden Fleece, Misty Gold and Moonlight Madonna. Since these yellows are associated with recessive white they should throw no types with anthocyanin color. In crosses with whites of similar parentage, they should produce only clear whites, creams and yellows. Muddy shades of tan and purple, so common in crosses of all but the more recently derived yellows that are associated with the dominant white inhibitor of anthocyanin color, would not be expected from these crosses.

C. *Dominant Whites*

Homozygous dominant whites that breed true and do not segregate blue seedlings would be very useful in certain genetic experiments. Among existing varieties the nearest approach to the homozygous types would be expected among varieties both parents of which were white. Examples are Geddes Douglas' Sharkskin and Northman (Cathedral Dome x Stella Polaris), Franconia of Dr. Graves (Alba Monte x Snowking) and Knowlton's Blizzard (Snow Flurry x Easter Morn). Selfing and intercrossing these and other dominant whites as Alba Superba, Cathedral Dome, Easter Morn, Katharine Fay, Mount Cloud, Mount Washington, Priscilla, Snow Carnival, Sierra Snow, Snow Flurry, Snowking, Stella Polaris, Winter Carnival, and Vigil would furnish progenies from which more nearly homozygous dominant whites could be obtained. Sharkskin x Great Lakes gave Geddes Douglas 15 whites and 1 blue, suggesting that with respect to the dominant white gene Sharkskin is triplex (WWWw); if so, one seedling in every 4 among its selfed progeny would be on the average the desired homozygous dominant (WWWW) type. Intercrossing whites of dissimilar parentage also might produce new whites and blues of greater hardiness and vigor.

D. *Self colored medium and dark blue purples*

Little is known about the genetic behavior of varieties in this category. True breeding types would be very useful and data on selfs, intercrosses and outcrosses to recessive whites and amoenas are needed from such varieties as Black Valor, Brunhilde, Cyrus the Great, Deep Velvet, Down East, Dymia, Ethiop Queen, Gulf Stream, Incognito, Mrs. J. L. Gibson, Sable, Storm King, The Bishop, Vatican Purple, Violet Crown and Violet Symphony.

E. *Bitones in medium and dark blue purple, mauve and violet shades*

More information is needed from selfing, intercrossing and outcrossing to recessive whites and amoenas of such varieties as Amigo, Anne Newhard, Blue Peter, Chivalry, Indiana Night, Lothario, Missouri, Valor, The Black Douglas, West Point and Winneshiek. Cross these varieties with Wabash, Cantabile and other true amoenas to test for amoena and neglecta segregates.

F. *Reds and red purples*

Are these colors merely combinations of yellow and purple in varying proportions, or is a distinctive red purple color involved which is inherited as a unit character? To answer this question intercrosses should be made with recessive whites and light blues such as Shining Waters and Great Lakes, together with a careful analysis of selfed progenies of such varieties as Action Front, Captain Wells, Christabel, Crimson Tide, Edward Lapham, Flamely, Miobelle, Orange Glow, Piute, Radiant, Ranger, Red Gleam, Red Valor, Redward, Redwyne, and The Red Douglas. Self pollination of these varieties would furnish much needed information about homozygosity, and provide a test for the presence of different color components. More inbreeding has been practiced in perfecting reds than in the development of other color types. Consequently intercrosses of unrelated lines might exhibit an appreciable amount of hybrid vigor.

G. *Amoenas and Variegatas*

Intercrosses of these two types, which are often difficult to make, would tell us whether amoenas are simply variegatas without yellow, and might yield improved types of amoenas. Diploids worth trying include Richard II, Thorbecke, Iris King, Gay Hussar and Knysna. Tetraploid variegatas which might be used in crosses with

Wabash, Cantabile, Extravaganza and other amoenas or near amoenas include Black and Gold, City of Lincoln, Cortez, Good Cheer and Gypsy. Wabash crosses readily with certain varieties but rarely or not at all with other varieties (see 1946 summary) and cooperators are urged to make at least a half dozen pollinations when attempting to cross amoenas and variegatas (Wabash x Shah Jehan failed repeatedly in 1946. Try it again this year).

H. *Origin of tangerine beard*

Whence came the brilliant red beard that is invariably associated with the seashell pinks? Can its origin be traced to the Eastern Mediterranean species *mesopotamica, cypriana, kashmiriana* and Ricardi, or to the diploids of European origin, or has it appeared as a mutation more or less recently? In connection with the 1946 program a limited number of crosses involving the red beard were reported, but more are needed to test for its presence as a hidden recessive in diploid varieties such as Airy Dream, Dog Rose, Marquisette, Nuée d'Orage, Snow White, the triploids Sunmist and Venus de Milo and various tetraploids including Cardinal, Copper Crystal, Dominion, Easter Morn, E. B. Williamson, Midwest Gem, Morocco Rose, Purissima, Prairie Sunset, Rameses, Wambliska, W. R. Dykes and Sherbert. Any of the pinks with the red beard are suitable for use as testers to cross with the above varieties provided they have well developed, intense, red beard color. The diploids should be selfed and intercrossed as no diploid testers with the red beard are available.

I. *Breeding behavior of tangerine bearded pinks*

The available evidence suggests that the seashell pinks with the tangerine or red beard involve a combination of the dominant white inhibitor of purple anthocyanin in combination with pale yellow or cream. The color of the beard seems to spread over the petals to produce varying shades of pink from almost none (Titian Lady) to rich raspberry shades (Fantasy). In the latter case the anthocyanin inhibitor may be lacking, the deeper pink shades being achieved by a combination of the beard color extending to the petals and blending with the orchid and lavender shades already present. This is apparent among seedlings of Flora Zenor x Jeb Stuart in which the red beard color and dominat white of Flora Zenor segregate independently to produce creams, lavenders, reds and purples with and without the red beard. Lavender pinks and pink blends (Dreamcastle, Aubanel, At Dawning, Inspiration and Pink Perfection) crossed with seashell pinks would not be expected to produce pinks with the typical red beard in F_1 unless the lavender pinks carry the beard color as a hidden recessive. Paul Cook obtained no red-bearded pinks from Dreamcastle x Melitza nor from Dreamcastle x Flora Zenor, but some did appear in the progeny of Harriet Thoreau x Loomis SQ-71.

Dominant whites that carry the gene for the red beard should be an excellent source of seashell pinks, and in fact they appear frequently in the near ancestry of tangerine bearded pinks (See ''Prelude to Pink'' by Geddes Douglas in Bulletin 92). However, pinks with the red beard will appear in the F_1 progeny of only those dominant whites that are heterozygous for red beard. Dr. Franklin Cook grew approximately 500 seedlings from Loomis' pinks crossed with Snowking and other dominant white without obtaining any pinks in the first generation. Since the red beard segregates independently of the dominant white and appears to be dominant or epistatic to most other beard colors, it should not be difficult to obtain amoenas and plicatas with tangerine beards. These would, however, be expected to exhibit the pink shades characteristic of blooms having the red beard.

The best available tangerine bearded pinks should be crossed with Baldwin, Conquistador, Golden Eagle, Morocco Rose and Prairie Sunset for a further analysis of their breeding behavior and for new types of pinks; also with various dominant whites, including those listed in the preceding section, and with recessive whites such as Matterhorn and Snow Velvet.

Instructions to Cooperators

To be of scientific value crosses must be carefully made to minimize the possibility of insect contamination, and the results obtained from them must be accurately recorded. To obtain uniform results hybridizers are urged to conform to the following procedure.

1. In making pollinations select anthers from fresh blooms and be sure that the flowers to be pollinated have not been visited by insects; flowers with any trace of pollen adhering to any one of the three stigmas should not be used. If bumble bees are prevalent the blooms should be covered or the falls removed immediately after the flower has been pollinated.

2. Whenever possible at least 5 blooms should be pollinated in

making individual crosses to provide an adequate test of crossability and sufficient seed for genetic analysis of seedling progenies.

3. After completing a cross, a record should be made of (1) the parent varieties listing the seed parent first, (2) the number of flowers pollinated, (3) the number of pods formed, and (4) the number of seeds harvested from each pod. The seeds from each pod should be harvested and planted *separately* so that untrue crosses can be detected by comparing the seedlings from individual pods of the same cross.

4. Soon after pollination when the pods begin to form the flower stalks should be staked. Leaves and weeds or other debris should be removed from the base of the flower stalk as a precaution against stalk rot and bacterial infections that may reduce the viability of the seed. This is *very* important. Bacterial infection of otherwise good seed is a more frequent cause of poor germination than is generally realized.

5. The seed should be harvested when the pods are mature and begin to open at the top. Dry the seeds thoroughly in shallow containers, either in the sun or in a warm dry place, as soon as they are harvested. Seeds left in the pods after they are harvested often become diseased and fail to germinate.

Records to Be Submitted

The records desired by the Scientific Committee include, (1) crossing data as indicated below and (2) seedling data from recommended crosses as they become available in 1948 from the 1946 program and in 1949 from this year's crosses. Records also are desired from seedling progenies blooming this year from crosses similar to those outlined in this year's program, provided it is certain the varieties used as parents were true to name and adequate precautions were taken to avoid contaminations when the crosses were made. **(For Crossing Data Record see page 121.)**

Myth. Six centuries after Clovis when Louis VII took the Cross in the Second Crusade he sought a device for his banners. An angel came to him in his sleep and reminding him of the victorious Clovis bade him adopt the golden iris. This Louis did in 1147 and on the march to Marseilles the long colorful lines were made more colorful by banners thickly studded with yellow irises. And from that day the iris was known as the "flower of Louis," the fleur-de-Loys, contracted in later times to fleur-de-lis.—*L. H. Beck, Ga.*

WISLEY MEMORIES

William Miles, Canada

Friends have often asked me why I picked the irises as my favorite of flowers. Aside from their beauty they are the one flower that grows as well in Ontario as it does in England. Mr. Chittenden, the Director at Wisley some forty years ago, once remarked that the greatest interest and possibly the greatest development in the floricultural field in the coming years would be among orchids, irises, and sweet peas.

If we did not have, back in 1907, the highly developed tall bearded irises we did have many other most desirable types. *I. stylosa* was a source of much delight in the winter time. It should be much more extensively grown where the climate is suitable. It really is a charming thing. One of my earliest recollections is of *I. foetidissima* growing in the woods at the base of chalk hills in north Devon. The flower isn't much but in the early winter the seed-pods open out flat to expose rows of tightly packed bright orange seeds, a bright color in the house when cut for several weeks and a real picture in the garden. It died out the first year in Ontario even in the woods but grows well in Vancouver. Don't let its name frighten you. The crushed leaves give off an odor that is at worst just a little unpleasant.

Later it was my privilege to become a student at Wisley with its fairly representative collection of bearded irises—tall, intermediate, and dwarf and quite a number of species scattered around in suitable places. The main feature, however, was the abundance of Japanese irises growing around the ponds and along a broad ditch. They grew to perfection. The Siberians did well too.

The soil at Wisley, at any rate in the old G. F. Wilson garden, was a light sand, limeless and often quite acid in reaction. Rhododendrons and their near relatives grew luxuriantly. Never did I see Japanese primulas doing better. They were weeds, but what glorious weeds!

Without soil adjustment, bearded irises were weakened by leaf-spot and did not flourish. Generous applications of lime, in the form of chalk, remedied the situation. Dykes had the same condition in his garden and applied superphosphate of lime in the summer and chalk in the winter. That experience taught me that if the soil is deficient in lime, the lack must be remedied for bearded irises. I have never seen a soil that will grow both the bearded and the Japanese successfully without adjustment for one or the other.

It was Thomas Fraser, foreman in the floricultural department at the time, who first really aroused my special interest and pointed out the danger of using fresh barn-yard manure for bearded irises. I well remember a trip through the irises in 1908 as he explained the origin of the Balceng hybrids from Sir Michael Foster. They are hybrids between *balkana* and some forms of the little pallidas such as *cengialti.* Some of them at least wore dingy coloring. I still grow a *var. vocinensis* from Dr. Lemperg in Vienna, a lovely little thing, absolutely lacking all the attributes we look for in a modern bearded iris, but a charming thing nevertheless—just the way the Good Lord made it! Among the dwarfs at Wisley were *pumila coerulea,* Count Andrassy, *lutescens, lutescens* var. Statellae.

It must have been in 1907 or 1908 that W. R. Dykes from nearby Godalming came to lecture. Mr. S. T. Wright introduced him as "the gentleman upon whom has fallen the mantel of Sir Michael Foster." He dealt mainly with the species.

The R.H.S. shows held at Vincent Square every two weeks throughout the year were red-letter days, as also was the great Temple Show (later the Chelsea Show). Usually from February on irises were to be found, commencing with *alata* or *histrioides.* Many species were seen here for the first time. I well remember a well-grown pan of the beautiful little *Danfordiae* and I have never forgotten the unusual Peacock iris (*Morarea pavonia*) in the buttonhole of Mr. E. H. Jenkins after whom Mr. Bliss named his iris.

I have never seen such exhibits as firms such as Wallace or Perry staged in the open, like gardens that have been established for years and always with surprises in the form of rare plants. *I. iberica,* a grand thing, has not left as much mark as *I. Gatesi,* though it appears in the pedigree of Lady Mohr through Ibmac. Perry showed some of Foster's *pallida x iberica* hybrids Sir Trevor Lawrence and Sir Dighton Probyn in 1909 but I have not seen them listed for many years and I do not know whether they are fertile.

At one show in London Mr. Dykes identified a pan of *I. sofarana* for me. His garden was full of rare forms and he could see beauty in the clasping falls of *I. paradoxa,* in the incurved falls of *I. Hoogiana,* and in the flat falls of Kaempferi provided they were single. He feared that the iris would become a Florists' Flower with too set and arbitrary standards of perfection as with an auricula or carnation.

His tragic death removed the brightest star from the iris firmamen but Mrs. Dykes carried on nobly and became an expert in her own right—she was loveliness itself, a worthy consort of the greatest irisarian of our times.

Forty years ago the bearded irises were classified as to their resemblance to the so-called species, Germanica, Squalens, Plicata, Amoena, Neglecta, Pallida and Variegata groups, the whole lumped as "German" irises. Florentina and Kochii were later called Intermediates, a term used by Caparne in 1900 for his hybrids between the Tall and Dwarf bearded. The last old intermediate I now have was Ivorine and many had charm.

But to return to the Pallida group having papery spathes and in color some shade of blue or red-purple. The "miffy" Princess Beatrice, Odoratissima, Albert Victor, and Queen of May, the pinkest in its day, were in my 1909 collection. Mrs. Alan Gray was then a novelty (Her Majesty x a cengialti form).

The Variegata Group was very distinct and included clear yellows such as Aurea and Mrs. Neubronner or bicolors like Gracchus and Maori King. It is interesting to note that much of the present day yellow springs from *I. variegata.*

The Amoena Group has changed but little, as has the Plicata, though the flowers were smaller. Thorbeck, Mme. Chereau, and the Mme. Boullet of 1909 was to the modern Ruth Pollock as Mme. Chereau is to Los Angeles.

The Neglectas included Black Prince which Mr. Saunders grew recently for its extreme rich lateness.

Squalens corresponded to our present Blends and we considered Jacquesiana about the last word at that time.

The utilization of the newly introduced species *trojana, cypriana,* and more particularly Amas (macrantha) had revolutionary results—a deluge of tall, large flowered blue-purples. By persistent effort some breeders were able to cross these tetraploids with the old pallida-variegata diploids and produced Dominion, Souvenir de Mme. Gaudichau, and Alcazar.

The old classification was soon out-dated and our present day classification came along. In view of the almost insensible grada-

Dr. Craigie, Mrs. Bickle, Mr. Moffatt and Mr. Miles inspect a bed of new seedlings.

tions of color in the Tall Bearded iris today it is doubtful if two persons could be found who would wholly agree as to the class in which to place any dozen of the most difficult "classifiers." I marvel that there are so few inconsistencies in the Check List.

So much for the past. Now where are we going?

We should, nay we must, pay more attention to substance of flower, to stand-up ability, to floriferousness and we should not tie ourselves to an arbitrary standard of perfection so tightly that when a variety has that indefinable something we call charm or personality it should be unduly discriminated against.

Dr. Cook has frequently spoken of this quality called charm. Compare some of the hard-boiled movie stars with the soft-spoken gracious little ladies we are meeting every day down here in the sunny South. Then you will know what I am trying to convey when I say "charm."

*THE BACTERIAL LEAF BLIGHT OF IRIS

Walter H. Burkholder

During the early thirties a bacterial leaf blight of iris appeared in epidemic form throughout the eastern and middle western portion of the United States. While the disease was not a new one at the time, its severity for a few years led Miss L. McCulloch of the U. S. Department of Agriculture and myself to undertake independently investigations of the disease. Our conclusions were similar and form a basis for this article.

The bacterial leaf blight is known to have been present in Virginia as early as 1924 and was observed in Indiana in 1928. By 1935, however, it had been reported from Alabama to Massachusetts and west to Iowa, and in many places in a severe form. On the other hand, at this time I was unable to find the blight in the vicinity of Los Angeles in southern California, nor as far as I know has it ever been reported there. A few years later, after its outbreak in the east, the disease could not be found on the iris at Ithaca, New York, and reports were not received of its presence in other localities except from Minnesota and from Canada. In 1944 it had enttirely disappeared from the iris plantings at Ames, Iowa, where 10 years before it was prevalent. The disease was apparently on the wane in this country and had almost disappeared. However, during the growing season of 1946 the bacterial leaf blight was observed in the experimental plantings of Cornell University at Ithaca, New York, and showed signs of spreading. It is possible that the beginnings of another cycle of severity for the disease has started.

In the past many growers have failed to recognize the leaf blight as a distinct and separate disease even when it was very prevalent. The reason was that it is rather similar in appearance to the common fungus leaf spot that is prevalent year after year in most localities where iris is grown extensively. For the scientific minded the bacterial leaf blight is caused by *Bacterium tardiscrescens* and the fungus leaf spot is the result of infection by *Didymellina macrospora*. For the grower the symptoms of the diseases are of more importance.

**All material approved* by the Scientific Committee.

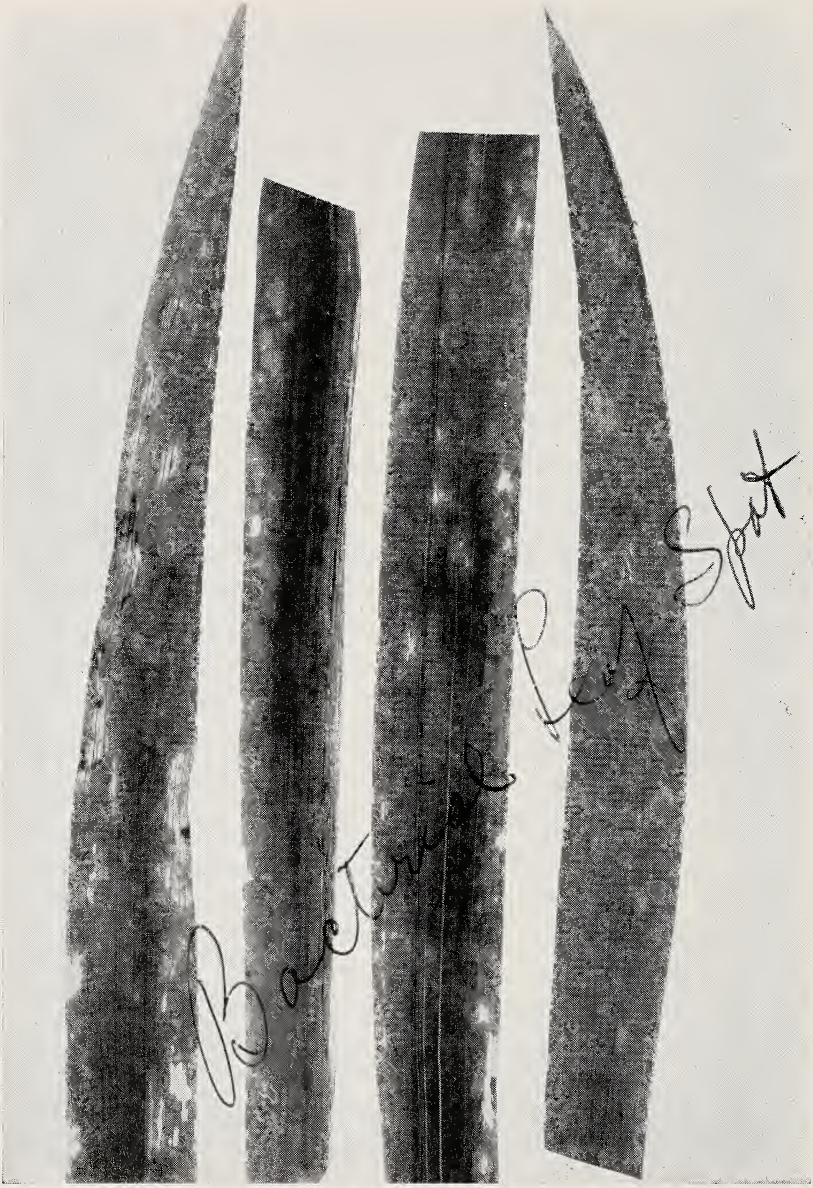


Figure 1. The bacterial leaf blight of iris. (Photograph by L. F. Randolph)

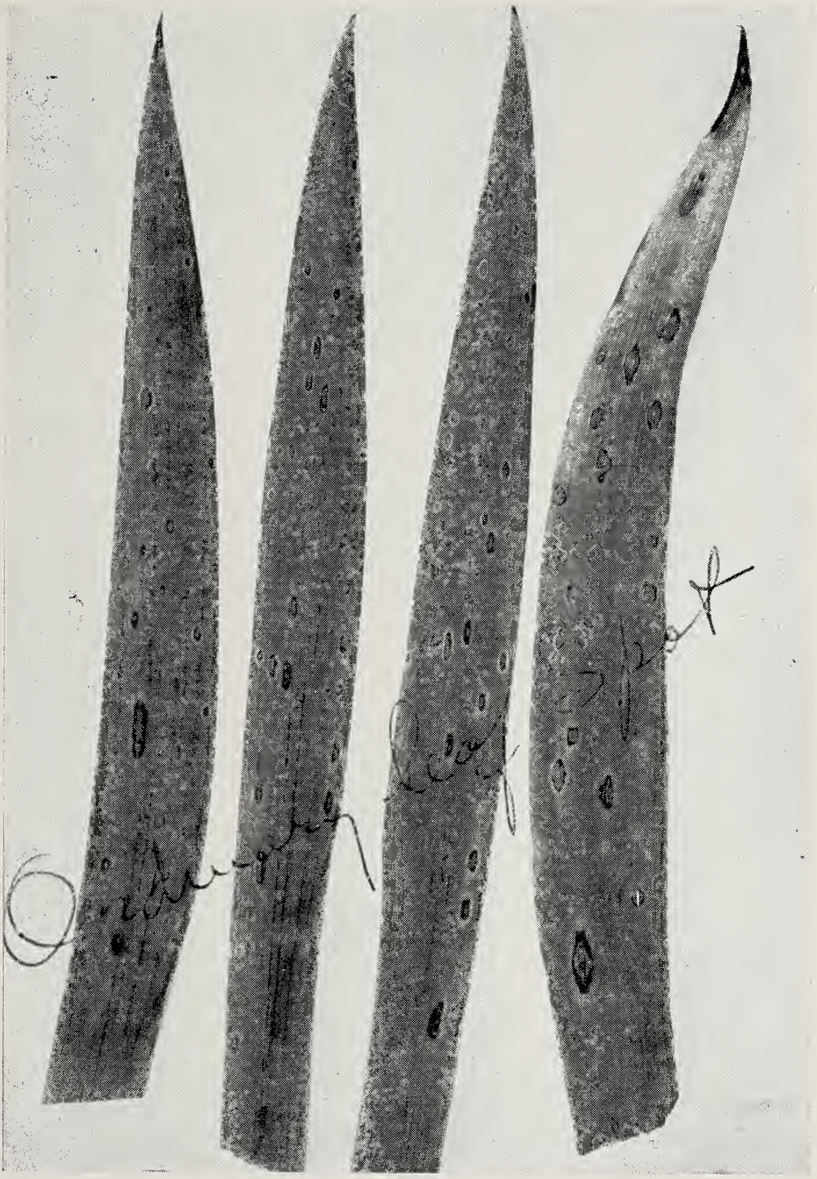


Figure 2. The fungus leaf spot of iris. (Photograph by L. F. Randolph)

The lesions of the bacterial leaf blight first become evident as small pale areas scattered over the leaf but at times more numerous along the edges. These primary symptoms may exist for a week or longer, while the lesion gradually expands especially longitudinally in the leaf. These symptoms are distinguished more readily when the leaf is held to the light than when they are looked at with the iris bed as a background. Eventually the diseased tissue breaks down into water-soaked, irregularly shaped spots which dry into brown necrotic areas. Occasionally the water-soaked appearance is absent. Under moist conditions a sticky exudate is noticeable over the lesion, and when dry may be removed from the leaf as a thin scale. The edges and tip of the leaf blade appear to be more susceptible to the infection than the central part, and it is this portion that first succumbs to the disease. In severe cases, the entire leaf dies. Figure 1 shows various stages in the development of the leaf blight lesions. The fungus leaf spot is illustrated in Figure 2. These figures show the differences that characterize the two diseases. The lesions of the fungus leaf spot are generally smaller and more nearly oval in outline than are those of the bacterial leaf spot. The fungus leaf spot has a grayish center, a dark border and frequently is surrounded by a water-soaked halo. These lesions which as a rule are on the upper portion of the leaf do not spread into irregular spots as do the lesions of the bacterial leaf blight, although at times several of them may anastomore and give rise to odd shapes. This occurrence of the mingling of the spots may readily be distinguished from the elongate irregularly-shaped lesions of the bacterial blight.

The bacterial blight is a disease that attacks only the leaves of iris and has not been found in the rhizomes. Even when the causal organism is placed artificially in the underground parts it is not able to establish itself either to cause rotting of the rhizome or to infect the leaves. Since the bacteria infest only the leaves they rarely or never kill the plant. The slow death of the foliage, nevertheless, is a drain on the physiology of the iris, and, no doubt, reduces flower and rhizome formation to a considerable extent.

Every plant disease is affected more or less by the environment in which it finds itself, especially the weather conditions. The iris leaf blight appears to be sensitive to temperature and even more so to moisture relations. In upper New York State the disease never appears until late June or early July when the temperature is appreciably higher than it is earlier in the season. This late occurrence, however, is not conclusive evidence that high temperature is necessary for the development of the disease, but at least the temperature is not unfavorable for its appearance. The leaf blight, however, is very dependent on conditions of abundant moisture. Diseased plants with early infection of small lesions will show no further development of the disease when kept under dry conditions. These same plants, however, when removed to a moist environment will quickly succumb and the leaves will show dead areas within a week. At Ithaca, a planting of iris showed a large amount of infection one season but the disease was practically absent the following year which was exceptionally dry, the rainfall in June and July being a third below normal. Apparently the disease bacteria do not thrive in hot dry summers, and this may account for the absence of the blight in southern California.

The influence of weather probably plays an important part in the rise and fall of the severity of the disease, but insect vectors also may be involved. The corn wilt, a similar disease, has been shown to be dependent on a large population of flea beetles which disseminates the bacteria from plant to plant. This insect is furthermore dependent upon the weather. It is abundant after a mild winter and scarce after a severe winter. With the iris leaf blight, however, no insect has as yet been shown to be associated with the disease.

Sanitation is the only recommendation that can be made at present for the control of this disease. This necessitates the frequent inspection of one's plantings during the growing season and the removal and burning of diseased leaves. A cleanup of this kind eliminates the source of infection, and stops the further spread of the disease. In the removal of the leaves, great care should be taken, for here one might aid in the spread of the disease instead of checking it. The water vessels of the infected leaves are teeming with the bacteria which cause the disease and when the leaves are removed with a knife or pair of shears, the blades may become heavily contaminated with the disease germs. The use of such implements may spread the disease to healthy plants. Also it is always better to remove the entire diseased leaf since the bacteria at times may extend 2-3 inches from the affected tissue into apparently healthy portions of the leaf. Where possible, these leaves should be pulled from the plant. When this can not be done efficiently and it is necessary to use shears or a knife, the blades can be disinfested with a bactericide after trimming each plant. A suitable bactericide for this purpose may be made by dissolving 2 corrosive sublimate tablets (each containing 7.3 grams of $HgCl_2$) in 1 pint of water. Care must be taken in handling this solution since it is very poisonous, and is also corrosive to metal. Besides this summer eradication, a general cleanup of the iris leaves in the fall would remove sources of infection for spring growth, both for the bacterial leaf blight and the fungus spot.

Since the disease thrives best under moist conditions, keeping the foliage dry and exposed to sunshine should aid in preventing infection and spread of the disease. Such procedures would depend upon the location of the planting but the removal of weeds and other shade plants is essential to the maintenance of disease-free plantings of iris.

Mrs. Lapham, Mrs. Louise Blake and Mr. Lapham, at Chicago.

DISEASE RESISTANT IRIS

By Geddes Douglas

Distances are great in Canada and Mr. W. J. Moffat, regional Vice President in Region 16, found it expedient to contact many of the Canadian Irisarians by means of a questionnaire designed to bring him up to date on various iris matters in this great country. Reports from Edmonton, Alberta, were singularly disturbing. The first question asked was ''In your district was 1946 a good iris season?'' H. B. Mann, Regina, Saskatchewan, answered this as follows, ''1946 was the worst year to date and a thousand mile trip through Saskatchewan and Alberta resulted in nothing but disappointment. . . . Great Lakes died of rot, Christabel bloomed on a 3 inch stalk and many newer ones refused to bloom at all. They seemed to be undecided whether to die or rot. Strangely enough the best iris display seen this year was a bed of Juniata, a 1907 introduction.''

Mr. C. O. Hicks of Edmonton, Alb., reported ''In 1945 Great Lakes was easily the finest variety here, but all clumps died last winter. In 1946 Junaluska, Rosy Wings and Lent A. Williamson were the best of the survivors. Lent A. Williamson and Juniata have grown and multiplied in Edmonton for many years. The new varieties seldom survive more than three winters. We have tried rhizomes from all the principal breeders but with no success. It would be better for these breeders to send their varieties to the University of Alberta for trial before describing them as hardy varieties. Further, in answer to the question of whether there was any relation between rot and the kind of fertilizer used, Mr. Hicks reported that ''Under the snow a fungus attacks the plants just at the base of the leaves which then lift off readily in the spring. Any animal manure unless very old is deadly, commercial fertilizers are safe.''

Mr. Mann reported that he had not been able to establish any definite relationship between rot and fertilizer. He continued, ''Generally speaking the newer irises do not seem to be overly adapted to Western Canadian conditions and without exception the growers have expressed disappointment with their performance over the last four year period. Losses have been so heavy that a number of people have given them up as a bad job. Tenderness is the word most often used, but to my way of thinking this doesn't accurately describe what happens to them as the majority seem to start into growth in the spring and rot very rapidly during the April frosts. From what I have seen lately it seems to me that the Society should make an effort to find disease resistant strains for future breeding work. I think it is quite possible that disease resistant iris do exist now among the older doorstep iris now seen growing in many places and thriving with neglect.''

To analyze the above statements it would seem that in 1946 there were two types of rot prevalent in Western Canada—Botrytis and bacterial soft rot. Botrytis is a winter disease and does the most damage in iris clumps which have been covered for the winter. On the other hand it appears that bacterial soft rot is most likely to appear in the spring after considerable growth has been made. Especially is this true if there has been much freezing and thawing. In this type of rot the conditions existing in Edmonton, Alberta, are no different from the conditions existing in Nashville, Tennessee, except in the relative magnitude of the infestation.

In this writer's garden there are three terraces used for exhibiting new varieties. In the lower terrace containing four beds there were planted ninety clumps of named varieties and numbered seedlings. In early March these beds were cleaned up and the ground lightly mulched by surface cultivation. The writer left on a southern trip in mid-April and at that time there was no evidence of soft rot. Upon returning ten days later it was discovered that a large number of clumps were affected. Ultimately forty-five clumps were totally or partially destroyed in spite of daily cleaning and disinfecting with all of the known ''cure-alls.''

This condition continued until the clumps were dug and dried as for shipment and then replanted elsewhere. These particular show beds had every kind of attention, were not fertilized either with animal or commercial fertilizers. They were given every care, and were kept clean.

On the other hand there were several interesting conditions prevailing at the same time. A row of older varieties were planted along the edge of the asparagus bed. The asparagus was heavily mulched with fresh manure in February. Quantities of this manure fell on and around the iris. At Dawning was covered to a depth of six inches. No effort was made to weed or clean these clumps until blooming time. There was no rot in any clump. Further, there are planted along the edges of the terraces various iris which are relatively new varieties—Magenica, Purple Giant, Titian Princess, Waverly and many others. Only two of these showed signs of rot and these two were Prairie Sunset and Three Sisters. The interesting thing is that most of these clumps have been taken over by the surrounding grass and this is true of several large clumps of some very old varieties used in landscaping of which Corrida is one. Year after year it blooms profusely — is never worked or weeded—and never rots.

About eight years ago we built a cattle-gap of concrete and steel pipes at the entrance to the road. It was built on top of the ground and over some old Washington seedlings which were planted along the fence. The dirt was filled to a depth of two feet on either side of the concrete box. Some of these iris persist in coming up inside of the enclosure year after year, even though they are growing in what amounts to a two foot hole in the ground. They get no direct sunlight, water stands on them and they are wet continually during the rainy season, and they have survived two liberal doses of weed killer which I poured on in quantity. It is quite disturbing to see an iris in bloom sticking up between the gratings of a cattle-gap.

Frankly, I do not know the answer to all of this. But there are certain inevitable conclusions from my own experience. Some of them are:

a. Early cultivation is conducive to rhizome rot. It seems to make the lightly covered rhizomes susceptible to the damage of repeated frosts.

b. Conversely, a light growth of grass (mostly rye and blue grass here) or chick weed seems to protect the rhizomes from frosts. It is a real frost that I'm speaking of, not just a freeze. The temperature may rise to 40-50 in the daytime and drop to 30-32 at night with a heavy white frost covering everything. This may occur as many as ten to fifteen times in late February and March and even in early April.

c. The bacillus causing rhizome rot seems to persist in the same dirt for a long time. I have had trouble in one particular bed for years. Varieties which rot in this bed have been moved to other locations and have become healthy again.

d. Some varieties rot wherever they are put. Contrary to what might be supposed, some of the reds are the worst offenders.

e. Some varieties never rot regardless of the conditions under which they are grown. Usually these are the relatively inexpensive kinds or seedlings that are classed as "also rans."

f. Soil in which iris have been planted and infected with rot will,

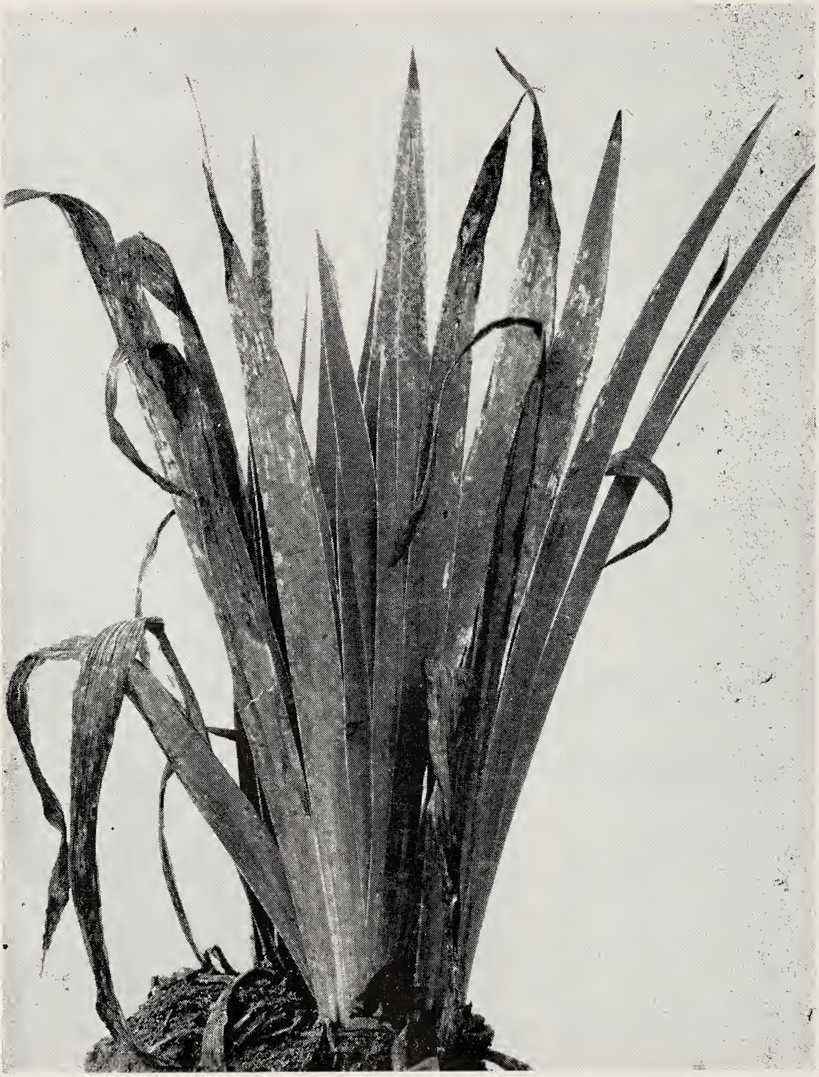


Figure 3. The bacterial leaf blight of iris, showing the effect of the disease on an entire plant. (Photograph by L. F. Randolph)

if given time and exposure to the elements, become free from disease. Seasonal plowing and plenty of sunlight seem to do the trick.

I do not want the readers of this article to get the idea that I favor growing iris in a weed patch or rank neglect as a cure for rot. The very fact that varieties will be free from rot when neglected means to me that we pamper our iris too much and by this pampering save many iris through favorable seasons only to have these varieties suffer victims to the rot menace in unfavorable seasons. It would be far better if we subscribed to ''the survival of the fittest'' and saved only the fittest.

The answer to this very serious problem seems to lie in Mr. Mann's suggestion that we develop disease resistant strains of iris. This is not a new idea. It was freely discussed at the last meeting of the Scientific Committee. A tentative program of investigation of all phases of rhizome rot is being instigated. A breeding program designed to produce rot resistant strains is in the process of being formulated. Volunteers selected from the list made from the SECOND QUESTIONNAIRE will be called upon to conduct these experiments in a scientific manner.

It appears to me that regardless of all of these steps, no iris produced in any one part of the country can be expected to be 100% rot resistant in all parts of the country. The breeders in Southern California select from their seedlings the iris which are of the greatest merit in Southern California. The same is true of New England. The breeders select there the iris which do better and look the prettiest in New England. The same would be true of Podunk or Timbuctoo. The Scientific Committee hopes to be instrumental in directing efforts toward producing strains of iris which will be disease resistant in the greatest number of places, but it would be too much to hope for to get anything absolutely foolproof everywhere. It would seem that Western Canada, having a special problem, must solve that problem as any other part of the country will have to solve a special problem. Iris growers there might try crossing the varieties which they found disease resistant there and save the hardiest seedlings. Eventually this would insure rot resistant varieties acclimated to the conditions in Western Canada. It is simply too much to hope that a millenium will be reached where all varieties will be hardy everywhere regardless of where they are produced.

THE USE OF D.D.T. IN THE CONTROL OF IRIS BORER

Mrs. Franklin P. Lowry and Dr. Irving W. Fraim, Mass.

In some parts of the United States the iris borer has long been a serious problem. This has been increasingly evident in parts of New England in recent years. Although the life cycle of the iris borer has been studied and determined in detail, efforts at control have been in the main unsatisfactory.

D.D.T., a more or less selective insecticide, had recently been found to be lethal to the corn borer, so it seemed to us that it might prove equally effective against the iris borer.

This new chemical in various types of preparation, came on the market in quantity during the winter and spring of 1945-46, and we decided to experiment with it against the borer larvae in the spring of 1946.* One of us used D.D.T. as a dust; the other in suspension as a spray.

It had been our intention to continue experimentations another year, after which we would report in more detail. However, the results were so gratifying that we have been urged to make known our experiment at this time, hoping it may be tried in many gardens this coming season.

The problem is to kill the newly hatched borer on its journey between leaving the egg and going into the iris leaf, sometimes a distance of twenty feet. The hatching of borer eggs is intermittent, and may extend over a period of two or more months, so it is most essential to begin a schedule of regular dusting or spraying early enough to hit the first hatch.

In the vicinity of Boston this season would normally be the first part of April, but in 1946 with an unusually early warm spell, it seemed expedient to begin applications on March 28. These were repeated weekly until the blooming season.

There was no controlled check in either garden, but an accidental check occurred in an unsprayed clump of *I. pseudacorus* growing fifteen feet from the main bed. In June, when the clump of *pseudacorus* was examined, it was found to be riddled with borers. None were found in the sprayed bed.

Both of us were much pleased by the apparent success of our efforts. In both gardens there was a definitely marked decrease in the occurrence of borers. We were not entirely free from them, but when one finds a dozen or so instead of the usual hundreds, it is a strong indication that the iris borer is vulnerable to D.D.T.

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*Dr. Randolph also plans to experiment with combined treatments for leaf spot and borer this spring.—Ed.

DUST under the name of ''Protexall'' was used in one garden with excellent results. It is a combination of D.D.T., Rotenone, Sulphur and Fermate; the latter is supposed to be of value where leaf spot is prevalent. Protexall is also prepared for use as a spray.

A more economic method for either dusting or spraying is to purchase a 50% D.D.T. *Wettable* powder, and make your own dilutions. For dusting, the dilution can be made by the addition of dusting sulphur or commercial talc. The sulphur is possibly more available in small quantities.

9 parts of dusting sulphur or talc.
1 part 50% D.D.T. *Wettable.*
1 part of Fermate (optional).

It is advisable to dust in the early morning when dew is still on the leaves. There should be no wind, otherwise much of the dust is dissipated.

SPRAY. The following formula is the spray which was used effectively in one of the gardens:

For the usual portable tank of 3 gallons—

Water, 3 gallons;
6 heaping tablespoons 50% D.D.T. *Wettable;*
3 level tablespoonfuls Dupont Spreader Sticker;
Optional: 2/3 cup Fermate made into a paste.

We used Dupont Spreader Sticker with the suspension, which is said to greatly improve the coverage and adhesion of the spray. There are many similar preparations which are probably as effective. Add D.D.T. to tank of water and thoroughly mix. The Sticker Spreader is then sprinkled on the finished suspension and carefully mixed. In applying the spray it must be remembered that this is a suspension, not a solution, and frequent agitation is necessary to keep a good uniform mixture.

Although spraying may be the somewhat more efficient method of application, dusting is by far the easier. With either method, ''*Wettable*'' D.D.T. should be used. Scientists have determined that the potency of D.D.T. when exposed to sunlight and air is effective for approximately one week.

It is important to meticulously clean up the garden in late fall. Iris leaves should be cut four to six inches from the ground and all dried leaves, twigs, and sticks removed and burned, as any of these might harbor borer eggs.

Reports from various authoritative sources, including Cornell University, assure us that rarely does the moth deposit its eggs on green iris leaves, but rather on nearby debris and often on the lower branches of shrubbery in the vicinity of the beds.

With such a program, a minimum clean up confronts us in the early spring, and we are ready to apply D.D.T. more effectively when those first warm days arrive.

Dust or spray thoroughly all iris plants, rhizomes and a large area surrounding them, and should your iris planting be near hedges or shrubs, by all means give the lower branches thorough applications. When using dust with sulphur, one should be careful that it does not come in contact with viburnums. D.D.T. should never be used near cucurbits (squash family).

While we do not claim that our experiments have been conclusive, our results definitely suggest the possibility that D.D.T. may become a valuable aid in the control of the iris borer. We hope that our efforts will encourage others to experiment along this line, and that some one will find time and opportunity to furnish us with more precise findings by carrying out a controlled program.

"Scorch" Anent the comments on ''red fire'' or ''scorch'' in BULLETIN 104 I have the following observations to make.

1. I agree that this manifestation is probably neither contagious nor infectious. It is not common as a rule nor is it rare. With me the incidence seems to be approximately two cases per thousand plants yearly both in California and New York. Perhaps it may be likened to some of the malfunction diseases of humans like diabetes or cancer.

2. Irises grown in nematode infested soils in Virginia and California show no greater incidence of ''red fire'' than elsewhere. I had affected plants checked for nematodes with negative results.

3. With me the onco-breds and some of the older pinks seem most susceptible although I am inclined to think this must be coincidence.

4. The progressive atrophy of the roots and the characteristic scarlet to red endoderm or inner skin (which shows right through the outer skin) are as symptomatic of the disease as is the scorched apperance of the leaves which frequently appear to be slowly dehydrated.

5. After removing an affected plant, I plant another right in the same place and have never observed a repetition at the same place. For that matter I have never been able to inoculate a healthy plant with soft rot, nor have I ever heard of anyone who did.

6. After removal from the ground, the rhizomes of diseased plants shrivel more rapidly and to a greater degree than do healthy rhizomes. I always trim the roots and tops off clean and put them away to dry off a month or so. I then replant in a pot, and after growth is well re-established then plant in the garden. To my knowledge I have never seen a relapse or a second attack. I once had a clump of Sheriffa blight down in a hurry when in full bud. I broke up the clump, trimmed the rhizomes and put them away and forgot all about them until I accidentally came across them 15 months later. They were sorry looking things but I planted them and nearly all of them grew.

7. In regard to the use of trace elements in an attempt to control this and other iris diseases it should be remembered that most of these elements are toxic in more than very minute amounts. While elements like nickel, zinc, copper, boron, etc., seem necessary for plant health, many plants have an extremely limited tolerance for excessive quantities of these same elements and seem very susceptible to overdoses of zinc, copper, boron and arsenic. Magnesium and manganese are somewhat different. Perhaps the many benefits reported from the use of potassium permanganate derive as much from the manganese as from the potassium. Thus while a tiny amount of copper, boron or zinc might have beneficial effects under certain conditions, just a little more might be injurious.—*Robert E. Allen, N. Y.*

Scorch Again. Concerning "scorch," Mr. Sturtevant says in BULLETIN 104, "To my layman's mind it would seem that nematodes on the growing tips might well explain what we call "scorch." The copper-ether control that I have used for "scorch" is recommended for use in the control of nematodes. If I had nematodes and it has any virtue for that purpose—and I have been told that experiments being carried on in the state prove it has—this would explain the disappearance of "scorch" in my garden.

However, my plants have been examined by the pathologist at A. and M. College. He diagnosed the disease as Botrytis convoluta, a form of rot, and did not note the presence of nematodes. If he is correct we are back where we started.

A number of years ago I appealed to a famous pathologist to make a study of this disease and to test my method of treatment. Won't someone please help?—*Eleanor Hill, Tulsa, Okla.*

From H. R. Smith, *Dubois, Pa.*

"The accompanying photograph is of a seedling from the cross Trostringer X Dauntless made by our nine year old son who died in 1940. A few weeks after his death I noticed that seven little seedlings had come up in his seed-bed so naturally we gave them attention.

In 1941, after the regular bearded iris season was over I noticed that one seedling showed evidence of bloom. Its thick corrugated leaves were different from the rest and undoubtedly it was a mutation. The photograph shows the first bloom which opened on June 10th, and the stalk slowly grew in height and developed in branching until there were five branches in all and the lower branch was re-branched. The last bud opened July 8th. No wonder we were excited over this iris for it was a lovely orchid pink without the striations of Trostringer; a large broad flower of good substance. Also it prolonged the season a full month. However, soon after blooming it began to drop its leaves and by fall the stubble-like stalk was still green but no growth was visible. During 1942 the rhizome remained solid and green, but when I dug it in 1943 I found it had no roots. What shuffling of chromosomes could have inhibited its growth that nature could not bring out?

Tall Bearded irises blooming out of season are not uncommon; Grace Sturtevant has bloomed for us in September and Autumn Queen in July, but this one was different. Its slowness to come into bloom together with its typical Trojana Hybrid branching materially prolonged the season. Its sister seedlings were normal and inferior to Trostringer. . . . Etc."—*H. R. Smith, DuBois, Penna.*

The experiences of others may serve to minimize Mr. Smith's loss. As to this seedling being a mutation we would quote from the famous song from Porgey and Bess and say "Taint Necessarily So." The fact that it had corrugated leaves different from the other seedlings from the same cross might simply indicate a natural inheritance from I. variegata. It would have to be observed more than one season to be classed as a definite late bloomer for frequently seedlings develop slowly for some reason and bloom after the regular season is over. Also in some seedlings the factors controlling bloom are more active than the factors controlling growth. Remember that an iris reproduces itself in two ways—by seeding and vegetatively; the purposes of nature are satisfied by either. New seedlings which bloom from a single fan are not a rare occurrence and in the case of Mr. Smith's seedling late development and inhibited rhizome reproduction happened at the same time.

"Trostringer X Dauntless seedling"

Seedlings that bloom from a single fan can frequently be saved by cutting the bloomstalk before the energy stored in the rhizome is exhausted by the process of blooming. Some believe that if the stalk is cut off rather high above the ground and the dirt is built up around it in a little mound that the fan will be apt to produce an offshoot. Others advise frequent watering with a solution containing B_1 and a rooting hormone. An amoena seedling from Extravaganza x Wabash which bloomed from a single fan was made to send out an offshoot for your Editor by watering with a solution of plant food (liquid) to which a liberal dose of Rootone had been added. Seedlings saved in this manner invariably show normal growth characteristics and blooming habits in later years. The tendency to produce no sideshoots seems confined to the first seedling year.

In losing his seedling from Trostringer X Dauntless, Mr. Smith has suffered a loss that may never be replaced. In the first place it is almost a miracle to get a clear pink seedling from the cross in question for one of the parents, Trostringer, is only one generation removed from the species. In the second place it is remarkable that the seedling should have come from the relatively small progeny of seven seedlings. Trostringer came from Caroline E. Stringer, a seedling of Her Majesty, crossed with the species I. trojana. This was a 2n X 4n cross made by the late H. P. Sass more than twenty years ago. The relative proximity of this cross of two iris with different chromosome counts seems clearly responsible for the color break from Trostringer X Dauntless.—*G. D.*

CLASSIFICATION

Rating System for Dwarfs. *Walter Welch.* I would like to add my expression of discontent to the already overgrown resentment over the false classification of our Iris, as expressed in many articles in the Bulletins recently and in letters and conversation with members.

The American Iris Society has made an arbitrary ruling that any iris shorter than 16 inches in height shall be called a Dwarf. Those between 16 and 28 inches are Intermediates and anything over 28 inches is classed as a Tall Bearded. Obviously this classification was made by a devotee of Tall Bearded Iris; with an utter lack of appreciation of the intrinsic values and potential possibilities of the other groups.

The three types of Iris are very definitely separated into classes on a botanical basis.

The typical Dwarf Species in Pogoniris are *pumila, chamaeiris, arenaria, Bloudowii, Mellita, Var. rubro*-marginata, *reichenbachii* and a few sub-divisions of these. These are all very early bloomers and dwarf, very seldom ever reaching 12 inches in height when well grown, and most of them averaging around 6 inches. These species, their hybrids and derivatives should be classified as Dwarfs. This should be a pure classification and no runty plants from the other classes should be included.

The Tall Bearded also has a very distinct origin. *Trojana, mesopotamica, variegata, pallida, cypriana,* and forms of Regelia are among the parentage of our Tall Bearded. These are the latest blooming and come in all sizes and heights from 18 inches to 48 inches, normally. There are occasional much smaller plants that appear in the seedling rows and these are placed in the Dwarf or Intermediate class, according to height, regardless of time of blooming or other divergence in characteristics.

Many of our finer Iris fall within this category under 28 inches. Gay Hussar, by no stretch of the imagination could be placed in the Intermediate class, yet it is only about 18 to 24 inches in height. It blooms with the Midseason Tall Bearded. Many of our diploids, such as Noweta, Loreley, Clara Noyes, seldom attain a height of 28 inches yet cytologically they can be distinguished as belonging to the Tall Bearded class. Zingara, the nearest to pure orange I have ever seen, is a problem child, I wish Mr. Randolph would give us a chromosome count of it. It is approximately 12 inches tall, blooms with the Tall Bearded and breeds like an Intermediate or hybrid, in that it gives few seed, which germinate poorly.

That gives us two distinct types of Iris that have a diversity meriting a specific classification. These are the only true and pure classes which we have.

The Intermediates are a blending of these two types. As the name implies, they are intermediate in size, height and time of bloom. As this blending approaches the Tall Bearded or Dwarfs, so does the size, height and time of bloom approach these two types. At any rate they are still Intermediates, but at some point in this blending process, some will approach either class, as to be identical in all outward appearances.

Now we have arrived at the barrier which has caused all the confusion concerning classification. The masters will agree that for the past and present this classification is based on sound principles. But in time all classes will become so mixed as to lose their identity from a botanical standpoint.

Some will lament over the loss of identity of the Intermediates. In my opinion they have no identity, never had any, separate from the two main classes, except as you would recognize a sub-species or further division. (Please do not think I am trying to underestimate the Intermediates. I am speaking of Classification.)

For the future, I believe that classification will have to be based on a "Standard of Perfection," as exemplified by our rating system. It will have to be flexible, and based on the current ideal. It will eventually determine the type and style of the various divisions.

There was a time when 24 inches was, for Tall Bearded, a normal rating, when bunching at the top and strappy, incurved falls were the rule. By penalizing these faults the present Iris were developed or perhaps I should say by development, these faults were penalized. The Dwarfs and Intermediates could be segregated into classes in this manner.

We have one scale of points based on the Tall Bearded. You could not rate a Dwarf or Intermediate by this scale. There is no branching on most Dwarfs, and should not be. There are other points to consider in judging these divisions. For instance, a Dwarf should rate perfection, say between 4 and 8 inches. Every inch above or below this point should be penalized one or two points, up to a given point, when it should be disqualified for that particular class. Time of blooming should have a very determinative influence on the rating, and branching of Dwarfs should be discouraged by proper deductions from the score.

By these methods a particular type for each class would be evolved. I agree that for the Tall Bearded devotee the present arrangement is perfectly satisfactory, but it does not offer the other classes an equal opportunity to express their worth and individuality.

There should be a separate rating score for each section, based on the ideal as expressed by persons who understand these classes, and not by the ordinary judges who express themselves in the Symposium as "not interested," when asked to comment on a Dwarf variety. I do not mean to imply that a rating system will solve the problem; I have small respect for the rating system as functioning at present. The "Symposium" works more effectively in my estimation. Establishment of classification will be an evolutionary process, and a rating system will be a step in that process; a clear definition of the ideals of a class, as expressed by the breeders working on these classes, within an adherence to the general conformity of the original conception of these divisions, is needed.

■ Allen thinks the present classification or grouping of intermediate height irises with the intermediate blooming resultant of crosses of dwarfs and tall bearded, is absurd. Where would either of you (Douglas-Allen) put a seedling of a cross between an early dwarf and a late tall bearded which blooms with the mid-season TB and is 18 inches tall? What can be more absurd than to have three types of bearded iris classified by height as dwarf, border and TB, and then have a special class called Intermediates, resultant of a cross between dwarfs and tall bearded, that are supposed to be intermediate in their blooming season, but vary from as low as ten inches in height to 36 inches in height? And what would you do with Tall Bearded irises that bloom before these so-called Intermediates?

Do you honestly believe the term Border Iris will encourage the judges to give them a fair break, more fair than the term I have them "bedding irises"? You know they will not, and unless they do they will make no more headway than the "new dwarfs," "table irises" and the low growing "runts" of TB irises. If gardeners want border types they will buy them as readily, known as intermediates,—probably more so—than if known as border irises, and referred to as "runs" by the judges.—*Charles E. F. Gersdorff.*

With respect to your pessimism regarding the average gardener being able to differentiate Intermediate irises by their chromosome count I want to say that it was not implied that he should. All that is necessary is for dealers to segregate and separately list and describe the true intermediates that they sell, just as many dealers separately list their remontant and Mohr hybrid varieties. I'll go so far as to say that in my opinion the "Border Irises" of Geddes Douglas should also be separately listed as well as the onco-breds that show definite oncocyclus characteristics.—*Robert E. Allen.*

We liked the suggestion of Robert E. Allen that the Check List definition of the Intermediate section read "hybrids between Dwarf Bearded varieties and Tall Bearded varieties" regardless of height or size. In my own mind, whether correct or not, Iris are either Dwarf, Intermediate, Border or Bedding, or Tall Bearded. They are easy to handle classified in that manner. We heartily endorse the plea of J. E. Bennett for Garden iris, and it would be interesting to hear from our members who do not grow iris for show, medals or eulogies, as to what they would like in the way of iris. My conclusion is that the subject matter of iris is so wide and deep, and governed by so many factors, one had better stay out of discussions. But how can one?—*Mary F. Tharp.*

Golden Treasure makes a fine clump.

GROWTH QUESTIONNAIRE

R. S. Sturtevant

■ The Questionnaire on Growth was hurried into Bulletin No. 103 as a result of the frequent discussions of so-called hardy or tender varieties, hardy or tender strains that should be avoided in future breeding. Just what did experience prove and would it be possible to get such reports sufficiently promptly to serve as a guide in the purchase of a novelty while it was still high-priced?

The Medalists include old and new varieties of varied origin—presumably the most widely advertised and distributed of any and for the same reason it seemed that the Symposium leaders in each color class would be available for report. Though practically no commercial growers or well-known collectors made any report the returns have value even if it is a purely negative value.

With very few exceptions the great majority are reliable performers in some garden in each section or some selected spot in each garden and in an average good season. There is nothing to indicate that ANY of them would become as ubiquitous as the old Common Blue, *I. germanica.* That and the Variegata Honorabilis, and, to the Southward, *I. albicans,* sometimes Flavescens are almost road-side plants. With so wide a choice of varieties for general use there is no likelihood of any one getting such an opportunity to grace our highways though many may possess the intrinsic vigor. Mr. Robert Allen well presents some of the uncertainties of such a report.

"You understand, of course, these arbitrary designations are purely relative. Auburn is not as tender as Caroline Burr, nor the latter as tender as San Francisco. Daybreak and Pink Reflection are not as perfectly satisfactory as The Red Douglas or City of Lincoln while these two are less so than Great Lakes and Berkeley Gold. Maybe after you tabulate your preliminary results you may want to re-circulate a questionnaire with perhaps three degrees in each class. (Not for me, thank you.)

"I wish too that you had a fifth classification to denote relative vigor so that Melanie and Country Lass for example could be distinguished from Black Valor, Amigo, Edward Lapham, etc."

The reports from only a few over a hundred members are far from conclusive either for the country as a whole or for any one district. Illinois, Iowa, Indiana, and Ohio with 156 reports on varieties and only 117 reliables (though it includes 30 slow ones) has 20% of failure. The North East (Md. to Me.) (176 to 124) has 16% failure of sorts. Wisconsin, Michigan, and Missouri are little better. The South East guesses 25% of the time but fails only 12% and Texas and Oklahoma rate the first luck (only 10 reports) with 10% of reported failures, a slight edge only on other states. There was but one report from Canada and the six varietal reports from England hit San Francisco only.

I am going on the assumption that the average gardener wants a ''perfectly satisfactory'' performer though many varieties are worth waiting for.

Varieties awarded the Dykes Medal

In the following tabulation the first number indicates the number of reports, the percentage the amount of reliability abroad—or at home. T stands for tender, u for unreliable, and S for slow.

74 COPPER LUSTRE (Kirk. 1934) D.M. 1938. 70% P abroad, 100% at home.

50 CORALIE (Ayres, 1932) D.M. 1933. 60% abroad, 50% slow at home.

79 DAUNTLESS (Connell, 1929) D.M. 1929. 90% 1 T, 1 U at home.

52 ELMOHR (Loomis, 1942) D.M. 1945. 80% and 100% in Okla. and Texas. 1 T in Idaho.

74 GREAT LAKES (Cousins, 1938) D.M. 1942. 80%. The 3 T includes 1 in Canada.

66 MARY GEDDES (Wash. Stahl., 1931) D.M. 1936. 83% with 1 S at home.

80 MISSOURI (Grinter, 1933 D.M. 1937. 74% reliable, 2 T with 1 at home.

65 PRAIRIE SUNSET (Sass, H. P., 1939) D.M. 1943. 1 T at home.

79 RAMESES (Sass, H. P., 1929) D.M. 1932. 91% abroad and 100% reliable at home.

82 ROSY WINGS (Gage, 1935) D.M. 1939. 91% but 1 T at home.

65 SAN FRANCISCO (Mohr, 1927) D.M. 1937. 50% with 9 T though 90% reliable at home.

91 SIERRA BLUE (Essig, 1932) D.M. 1935. 66% with 5 T and 100% good in Calif.

36 SPUN GOLD (Glutzbeck, 1940) D.M. 1944. 66% and 40% S at home.

85 THE RED DOUGLAS (Sass, J., 1937) D.M. 1941. 70% 3 T and only 60% at home.

93 WABASH (Wmsn. 1936) D.M. 1940. 66%; 1 T. but 85% reliable at home.

Comparison of dates of introduction and of award reflect changes in the Award Policy. In the early years criticism of the English Policy of an award to a current introduction led the Directors to withhold three awards in the first five years. It is probable that the lack of a 1946 award (due to a tie of only 23 votes) indicates a similar dissatisfaction.

In studying the percentatges of reliability it is interesting to note how few varieties are 100% good in their home states and note should be taken (as with Coralie) that such a lack affects the country wide percentage.

As it happens there are 3 Sass irises (and Missouri may be added) with an average reliability of 75% both at home and abroad; 3 Nashville varieties at 81%; 2 California varieties at 58% abroad and 95% at home; and 2 Northeastern, 78% against 65% in the worst section of the country.

The record of Elmohr is especially noteworthy and William Mohr (3), Ormohr and Ormaco (2), Mohrson and Lady Mohr (1) are to be found among the "five others" to be commended for perfect performance.

Symposium Leaders. In the following list little is to be learned unless the percentages are considered as re-enforcing the quality of the Dykes selections. Geographically the variations appear similar. It must be remembered that reports are based on culture both in small gardens and broad fields and in an infinite variety of soils—humus, heavy clay, silt, sand, rocky, adobe,—alkaline, slightly acid, acid, volcanic ash,—red, black or gray.

32 BLUE SHIMMER (Sass, J., 1942) 92% reliable, 2 S.

25 CAROLINE BURR (Smith, K., 1940) 72% 2 T; 2 U; and 3 S.

6 CHIVALRY (Wills, 1944) 1 S.

70 CITY OF LINCOLN (Sass, H. P., 1937) 70% 11 U; 11 S.

39 DAYBREAK (Klein. 1941) 67% 2 U; 6 S; and 5 T (in Mo.)

62 FAIR ELAINE (Mitchell, 1938) 70% 12 S; 5 U (in So. East) 3 T (in Ill.)

16 MASTER CHARLES (Wmsn. 1943) S in Kansas, Texas, and Ill.

22 OLA KALA (Sass, J., 1943) 95% 1 S.

13 PINK PERFECTION (Cook, p., 1942) 75% balance S.

59 SABLE (Cook, Pp., 1938) 70% 1 U; 1 T; and 15 S.

18 TIFFANJA (DeF., 1942) 95% 1 S. (in Mass.)

17 TOBACCO ROAD (Klein., 1942) 50% 3 U; 4 S.

26 VIOLET SYMPHONY (Smith, K., 1940), 89% reliable; 1 U; 2 S.

11 WHITE WEDGEWOOD (Grant, 1943) Slow in Ill. and Calif.

The above shows relatively less distribution among our reporters. It may be due to age or cost or popularity of color. As selected from the 1946 Symposium plus two to three years' experience it can hardly be a criterion of the value of Symposium recommendations. In fact if you consider both lists only 8 (out of 29) varieties rate over 85% reliability and the odds are even less good in certain sections. If we consider these reports as a reliable cross section (a la the Gallup poll) even then we have little of value to the average member. Even San Francisco is grown successfully by some gardeners in every section though it got 9 out the total of 30 Ts among the medalists. The reports naturally do not reflect the losses of bloom from unseasonable freezes (the chances of a single season). They report individual experiences over a period of years and in a particular garden. The great majority of irises are hardy and easily grown. Perhaps the relatively few failures are far too widely publicized. I, for one, would be willing to call them easy to grow and concentrate our attention on introducing varieties of real quality, charm, and garden value.

Five Other Reliable Varieties. This brought out such a list of names that there were few duplicates and even fewer with any frequency of mention.

Among the leaders are Gudrun, Happy Days, Amigo, Los Angeles, Shining Waters, Old Parchment, Lighthouse, China Maid, Golden Majesty, Golden Treasure, Angelus, Indian Hills, Tiffany, Christabel, Arctic, Miss California, Melanie, Mulberry Rose. Less widely distributed perhaps are: California Gold, Gloriole, Azure Skies, E. B. Williamson, Farwest, Snoqualmie, Frank Adams, Elsa Sass, Majenica, Moonlight Madonna, Treasure Island, and The Admiral.

Also rans are Pink Opal, Sir Michael, Serenite, Easter Morn, Monadnock, Morning Splendour, Frieda Mohr, Persia, Snow Flurry, Red Amber, Naranja, Ming Yellow, Dubrovnik, Matterhorn, Golden Hind, Aubanel, Anitra, Stardom, Directeur Pinelle, and many more. Melitza and Flora Zenor and Spindrift have all proved reliable and someone commends the DB Tony most highly—the one inclusion of other than Tall Bearded in any report.

That these have pleased for a number of years suggests that such a list might be worth adding to your garden picture.

SPECIES NOTES

Imbricata

My stock of *imbricata* came from seed obtained from Rex D. Pearce in 1938. Pearce had it listed as *sulphurea*. From seven seeds I raised five seedlings some of which flowered in 1941, all in 1942. The five plants, all very similar, have flowered well each year except when injured by spring freezes. *I. imbricata* is very early for a tall bearded iris. Its blooming season overlaps with the dwarf bearded, while it is usually past by the time the tall bearded varieties commence to open.

The stems of *imbricata* are about twenty inches in average height, and they carry from seven to nine buds, three of which are often open at one time. The lowest branch leaves the stem near the middle and may be as much as eight inches long. The spathes are herbaceous, green and inflated. The flowers are small, with narrow segments, and give a skimpy effect. In color the flowers are pale buff yellow with a greenish tinge. By Ridgway the color of the standards of my five plants ranges through Massicott Yellow, Straw Yellow, Naphthalene Yellow and Barium Yellow. The ground color of the falls is the same. The greenish tinge comes from green veins at the base of the standards and in the falls.

I. imbricata is distinct in many characters. The leaves are yellow green, paler than ordinary iris foliage; they die to the ground before winter. The rhizome is minutely shaggy from the remains of old leaf bases, and is of different shape. This iris even has leaf spot in a different way from other bearded irises. But as a plant for garden decoration it is certainly one of the least attractive of all irises.

I. imbricata has crossed easily with *Iris pallida* and some diploid garden varieties, and the resulting hybrids are fertile. It has not crossed so easily with the tetraploids, and the few hybrids so far raised have been only slightly fertile.—*Paul H. Cook, Bluffton, Ind.*

I. imbricata was sent to me some years ago from Vienna by Dr. Lemperg. It has the typical herbaceous, inflated spathes of the species. Sometimes the heads are three-flowered; it blooms with me with such varieties as Alice Horsefall and Golden Bow but lasts much longer, probably due to the three-flowered heads. It sets seed in abundance but I have never succeeded in germinating any.—*William Miles, Ingersoll, Ont.*

CORRECTION: I must have answered, in the limited space of the questionnaire, in such a way as to be misleading. *I. arenaria* and *I. cristata,* while they are not vigorous with me, survive and bloom. It was only *I. delavayi* that died without blooming. *I. ensata* is very vigorous and seeds itself freely. *Foliosa* and *graminea* also do well. *I. hookeri* is now down to one weak plant. *I. lacustris* does fairly well though not so well suited as in a garden where I grew it fifteen years ago. *Ochroleuca* and *pseudacorus* are both vigorous, as is *versicolor.*—*E. Horne Craigie, Toronto, Ont.*

■ **Wyoming.** After reading and studying the report on Species in BULLETIN 104, Mr. Moore has this to offer which I am passing on to those interested in species and the classification and identification of same:

"Regarding iris species—late last June we traveled across the Big Horn Mountains to Shell Canyon which is on the route to Yellowstone Park. There are many signs that the vegetable life in the canyon is of very ancient origin, there being huge cedar trees in the canyon that are thousands of years old and one of the most extensive deposits of prehistoric animals in the world was discovered not far from there; right in the middle of the whole location is a patch of wild iris, extending perhap ½ mile across. To my knowledge this is the only place in this part of the state where any wild iris can be found.

"These iris are beardless, from pale blue, almost white to lavender, veined deeper and growing 12 to 16 in. tall, growing equally well on a dry south slope as along springs. The foliage is in huge mats and not erect. I have read and studied every description that I can find and as yet have been unable to identify them." Mr.

Moore further states that he will be glad to send plants to any one who collects wild iris, also has quite a few seeds of same.

■ While on the subject of wild iris—when in Italy during the war, my nephew spent one Easter leave of absence on the Isle of Capri, and remembering my hobby he sent me a pkg. of wild iris native to the island which the dealer described in glowing terms as being a most beautiful chocolate brown. The seed seemed peculiar to me, being a bright red; however, the germination was good and I now have a number of plants that went into the winter about 4 in. high. Not knowing how to care for them I mulched part of them and the rest left uncovered. I hope to raise and grow a few just for the novelty. If any one can give me any information on the culture of same, it will be most welcome. The only thing on the pkg. of seed was "Wild Iris."—*Mary F. Tharp.*

(Perhaps the "Scarlet Seeded Iris," *foetidissima* with dull brown flowers and reportedly of easy growth though I have never seen it. *I. aphlla, germanica,* and *pallida* with red brown seeds are also natives of the region but the flower color is not a chocolate of course. —*R. S. S.*)

COLOR PHOTOGRAPHY

Percy I. Merry

Photographing in color, and especially photographing specimen blooms such as iris, entails utmost care and time and unless you are willing to spend sufficient time and effort, it is almost better to take no picure. A good camera with at least an F5.6 lens, a tripod, exposure meter, and portrait attachment form the minimum necessary equipment.

Make the instruction book of your camera your Bible; study it carefully. Repeat with the instruction book of your exposure meter. A camera with a built-in range finder is most desirable, since it eliminates the necessity of measuring your distance for every shot. If your camera is without range finder, either get a separate range finder or have a metal tape line with you. Proper focus is most important.

Proper exposure is vital. Use your exposure meter for every shot. If the experts with all their experience use one, the amateur certainly should. Light and color vary so in intensity that guessing will not do. The makers of color film emphatically advise its use.

The subject and composition are also very important. If the stalk you wish to photograph is not in good condition, even though one flower is in bloom and is something new, don't photograph it. Remember that this slide collection is like a catalogue and the blooms must be in first-class condition and that the stalks must have a sufficient number of buds and open flowers to be representative of the variety.

Poor pictures can do more harm than good for the originator. Be careful of the composition of your photograph; balance, design, and unity should be borne in mind. Remove dead blooms and tags (of course, with the permission of the grower) and arrange stalks so that there will be no crossing of stems and so that all the blooms possible will show.

Watch your backgrounds carefully. A garden makes the best background; it will be out of focus and give a very interesting effect. However, if there are objects that are distracting, it will be necessary to use a screen—black, white, gray, dull blue, or a complementary color all are good. Be absolutely sure that your screen covers the entire field. If your screen is not large enough, mask out everything outside of your screen when mounting your slide.

The portrait attachment will allow you to get closer than three feet to your object and will give you a real portrait. For your focus, disregard the range finder and use the scale that comes with the attachment. Since you are working so close to your object, you will have to allow for parallex.

A bright, cloudy sky that will give flat lighting on your flower and yet will not pull out the color as the bright sun does, is the best light in which to photograph. However, as it is not always possible to have the light effect we wish, the next best condition is to photograph in the morning and afternoon, avoiding the middle of the day. Always use your tripod. By so doing, you can stop down your lens, give a longer exposure, and get much better detail. I also recommend the use of cable release on the shutter, to avoid accidental jarring of the camera when exposing. The nearest to ideal conditions is artificial lighting with Type A color film and the 3200 Kelvin flood lamps. But not many growers will cut choice blooms for the photographer.

By following directions explicitly, even with out-of-door lighting, it is possible to photograph true color, even the elusive blue. But it takes more than one easy lesson to master the art of color photography. Let's start now so that next year we won't have to alibi for wrong color, out of focus, and unrelated objects.

OUR MEMBERS WRITE

Guest Ethics. *Miriam E. Corey.* With Mr. Robert E. Allen's permission I quote: **"Although I have never seen it in print, as a practice I always acknowledge specifically the receipt of the many guest irises I receive each year. I also promise that for a period of five years I will neither sell, give away or trade any of the increase from a guest iris except by the direction of the donor and I also promise to deliver to the donor, or as directed, all of the increase at any time during the five year period. I likewise make a practice of giving the donor yearly reports on the performance of guest irises received."**

It was something like this that I had hoped to see in the BULLETIN in reply to my question. Possibly there will be other replies, certainly it is a matter of question and interest to many not only hybridizers in the performance of their irises in other locations, but to the members acting as hosts to the irises. A definite program to follow would simplify matters all around; certainly Mr. Allen's are as generous and fair as any breeder could wish. It would seem to me that a rule that no unintroduced iris should be listed in a catalog without written permission of the originator would prove helpful. This is no doubt a practice with the larger growers but not always followed or understood by new or smaller growers putting out lists.

(How about making a "Gentlemen's Agreement" on the question of guest iris? There is no middle ground. An iris is either given to a person with *no* strings attached, or it is sent out as a "guest." This latter status deserves every possible consideration on the part of the grower.—*Editor's Note.*)

Plicata. Mr. Zickler agrees as to "plics" with our new president, Dr. Cook, and wishes no more space wasted on such comments. To the then editor its briefness was a pleasant relief from the more cumbersome "best blue I have ever seen" and the careful reading required of copying, galley and page proofing revealed the fact that Mrs. Steedman really liked a good handful of plicatas.

The upshot has been, however, most beneficial as Mr. Douglas and our new Photographic editor Mr. Caldwell have an idea of publishing a set of pictures of the different types of markings found in the plicatas and perhaps we can add to the old terms of etched, netted, dusted, sanded, penciled, or flushed new descriptive terms, as the presentation of a more detailed and true picture enhances the interest.

Mr. Zickler goes on to state his fondness for dark plicatas which, like other dark irises, seem to me less adapted to the garden picture.—*R. S. S.*

The reading of all varietal notes as well as those of numbered seedlings, tells an exciting new fashion note in iris, even if one does have sort of a bushed feeling afterwards. Purple beards! How they intrigue one! I have always been fascinated by the term “plicata beard”* and am still wondering just what was meant by that. Beards do play a very important part in the iris make-up, often changing the whole color tone of an iris. With the range of color now in beards, one might well believe that old Mother Nature had upset the dye pot!—*Mary F. Tharpe.*

To Do or Not to Do.

In BULLETIN 104 Mr. Carl C. Taylor cites the case of three sets of judges who chose three different irises out of a bed of white seedlings. The last judge exclaimed, “*For heaven's sake don't introduce any of them.*” I agree with this judge. If no one of the seedlings was sufficiently outstanding so that all could agree as to its merits, the iris should not be introduced. The gardeners for whom Mr. Taylor is worried might enjoy one or all of these seedlings but would get more real pleasure and satisfaction out of a fine white iris already introduced.

Mr. Taylor writes that “*if a breeder has an iris that he considers good he should not be discouraged in introducing it . . .*” There is no law against it and if that is what Mr. Taylor or any other breeder wants to do that is his privilege. Some breeders are blind (without knowing it) to the faults of their iris children and this is where the Iris Society steps in with judges to make numerical rat-

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*“The *thick* beard is in front white tipped with yellow and behind of a deeper orange color.”—*W. R. Dykes.* Actually this is a pallida beard as he considered plicata merely a sort of albino form of pallida (or cengialti). I think it was Mr. Bliss that emphasized the fluffy thickness of the beards of selected plicatas and the value of brilliant orange tips against the white ground. Such a contrast has become a standard of distinction to many varieties of many hues but the modern plicata is as varied in beard as it is in ground color and markings.

ings and to write comments for the good of the breeder and for the protection of the buyer. This may be the "discouragement" that irks Mr. Taylor. Perhaps he would dispense with judges, for they might not see eye to eye with the breeder in his evaluation of his own seedlings.

"*What can be the harm,*" writes Mr. Taylor, "in giving them to the public? "*If it (an iris) doesn't prove popular with many growers it will soon be forgotten.*" Maybe, but it is likely to prove to be a boomerang—the buyer may not forget who produced the iris, and sold it to him.

I know a man who has done just that—sold seedlings of second and third grade claiming they were good—but I have not met anyone who has bought of him a second time, and he has no iris standing.

It is amusing that Mr. Taylor should express anxiety over the "few" introductions of iris when BULLETIN 104 alone lists 450 registrations.—*Lena Lothrop.*

■ Word comes to the BULLETIN that Mrs. Maslin Davis of Roanoke, Va., has been awarded the national judging certificate by the National Council of State Garden Clubs. Long prominent as an accredited judge of the A.I.S., this honor comes as a fitting climax to a long career in garden club work. Some twenty years ago Mrs. Davis organized the Magic City Garden Club and in 1937 was influential in the formation of the Roanoke Council of Garden Clubs. She is now chairman of awards for the Southwest Region of the Virginia Federation of Garden Clubs.

EDITOR'S NOTE: Spray for general garden use recommended by New York State College of Agriculture is as follows:

3–5	level Tablespoons 50% Wettable DDT powder
1	level Tablespoon DUPONT SPREADER STICKER
3	level Tablespoons FERMATE
3	gals. Water

Make spreader into a paste, add to water In a separate container add some of this mixture to the DDT and Fermate powders. Mix thoroughly and then combine. After thorough stirring strain through a cheese cloth or fine wire mesh strainer.

On Choosing Names. *M. F. Stuntz. From an article submitted to the Midwest Hemerocallis So.*

Though much of it is based on A.I.S. and "Standardized Plant Names" rules the following extracts have value.—*R.S.S.*

"6. We suggest avoiding the use of any generic color in a name, such as Giant Gold, Flaming Red (Gold, Golden, or Blue or White), which are descriptive of many different varieties. We now have over fifty names beginning with the word "red" which gives really a separate small check list, thus making names twice as difficult to locate."

"9. Never incorporate the name of your garden or business in a flower's name. Sylvan Dale is a pretty name, but when combined with an accepted name it tends toward confusion." (I like the Benton group of irises as names but when I think of Miss Sturtevant's hundred or more, am I glad they were not preceded by Wellesley.—*R. S. S.*)

"10. Never name a hemerocallis after another flower, such as amaryllis, calla, etc. It would be equally confusing to name another flower hemerocallis (how about Daylily), for when a name is referred to, out of its proper place, it may cause confusion."

(I wonder about capitalizing on the name Fortune (of Daffodil fame) or Jasmine with its fragrance, or Peach with its flavor.—*R. S. S.*)

"The larger the number of happy associated picture-images which your selected name can bring up from memory's deep well to the surface of consciousness—the better the name."

(And here I concur most heartedly even to the extent of a cream tart.)

"The ideal name is short and sweet. Make yourself a 'christening list' now."

A.I.S. members should be-ware. The above is NOT official.—*R. S. S.*

Labels. "I had tried different kinds until I used green painted double purpose wooden stakes. The green harmonized with the iris leaves and were made tall to use as supports for the stalk when needed and varied in height to suit the variety.

"The names were painted on in white during the winter months and the honors and medals are shown by symbols. Both sides are alike—a help to visitors."—*Edwin Palmer, Primos, Pa.*

DISPLAY GARDENS. Mr. R. J. Comstock of Orangemeade Lodge, St. Charles, Ill., writes of the interest in display gardens, whether public or private. Their own collection of some 500 varieties will welcome visitors and he speaks of Dr. Clevenger's interest for one at the local Teachers College (Kirksville, Mo.) and of Mrs. Steige's collection at Constantine, Mich. It was hoped that we might publish a list of gardens "open" in this issue but it remains a hope for 1948 so prepare your information for such an appeal. Back in 1920 odd there were many members who welcomed visitors as well as the official display gardens (which rarely had recent novelties) and with our increased membership every member should find something to look at and someone to meet within a day of travel.

Orville Fay's seedlings, 1946.

This and That. Congratulations to our editor and assistants for the appearance of the January issue and so early. We note in The Project for Forty-seven, the need of new members. A worthwhile slogan for Forty-seven would be "Every member get a member."

Each year, come Winter (for to the iris lover the iris season does not end with the blooming season), all the old BULLETINS are dusted off and re-read. One gleans something of interest with each reading and is duly impressed with the fact that many iris are like politicians: they start out with a bright future and end up with a bad past. (Perhaps that is the reason one of my correspondents said that the iris game "was as funny as politics.")

Trumpets sound, whistles blow and iris judges go marching four abreast when a new and lovely iris is born. What a let down to know that after a short time, the iris in question is only "Master Cold Rice" as far as the general public is concerned. Perhaps we are too demanding, knowing that the charm of some iris is not for distant admiration, while others that display their charms at a distance and, like many actors, have to have the right lighting, are disappointing in a close up. We really should give our iris the same consideration as we do our friends. Some one so aptly said ". . . long ago I made up my mind to let my friends have their peculiarities." In passing will add that the above quote might well be applied to R. S. S. who states under Oddities (Jan. BULLETIN) that he expects to "begin a small collection of the weird and peculiar in color or the unique in form."

Speaking of collections—I have often toyed with the idea, in my quest for a new and lovely Amoena, of discarding all iris with the exception of the amoena type and those of amoena ancestors and pass the buck to the bees, "doing what comes naturally." I admit, however, that one would miss the thrill of knowing they had guessed right, in the event one did guess right.

Collections are fun! Mrs. Alice White of Fallbrook, Cal., writes that she is making a collection of what she so delightfully calls "pixyanas." I suggest she add Mary Williamson to this collection, as there is nothing so charming, in this class, as a well established clump of this iris. Blooming in my row of collected amoenas, this proved very popular with garden visitors. Amusing as it may seem to those who are up to date on iris, many of the iris fans of today had not seen or heard of it before and thought it something new.

Another correspondent states that she is collecting iris that have falls with an edge as Amigo, Rubient, Desert Commando, and McCall. Incidentally in the varietal notes sent in too late for publication we have this—Rubient—similar to, but not so good as McCall. Aside from being fun, collections are interesting and instructive; best of all, they preserve the best of the various types for future reference.

Some people just can't—or wont, understand that there are many who love iris, yet can not pay extraordinary prices for novelties, even if they desired, and for ordinary garden purposes or garden pictures, many good older varieties make good garden pictures; I might add, even better for the small home grounds that most Western homes have, than high priced novelties that are often disappointing and certainly require more care. Perhaps the fact that the Westerner does not recognize caste in people may have something to do with it; as Beirne Lay, Jr., so aptly said in his recent article on Boise (our State Capital)—". . . people don't care a hang how much dough you've got or who your old man was, if you look okay, you're in . . . until you deal one off the bottom." Many gardeners do not care what the parentage of an iris is if it looks okay and does well.

Having an acre in iris and being interested in hybridizing (as most growers are), Mr. Moore, Sheridan, Wyo., will have about 1,400 seedlings to bloom this year. He, along with many others, sends in a plea for list of good older varieties to be printed and commented on in our Bulletin. How true his statement is—"that you cannot interest a beginner in a $10.00 iris, when they like a 35c one just as well." After the iris bug becomes active enough they will become interested in the newer things.

Have been going over old files and as much as I hate to do it, I am discarding all correspondence up to Jan. 1946. I have re-read and enjoyed it all again, even the problems that have been laid in my lap. When I saw the cartoon (in a recent issue of Collier's) captioned "I don't wish to be quoted and DON'T quote me on that!" I was strongly reminded of various "don't quote me on that" all through my correspondence. I have never betrayed a confidence—YET! Looking back over the time I have been Regional Vice of District eleven, I find that besides acquiring a voluminous correspondence, that hustles me to keep up with, I have acquired many lasting and interesting friends. It has been a very pleasant as well as instructive era of my iris education. This sounds like a swan song so let us call it that and before we are possessed with, or by, the season's activities, let me say how deeply grateful I am to all those who have made my work so easy and agreeable. I know the next appointed Vice will receive the same friendly co-operation.

As I do not like farewells let us conclude on a lighter note, such as one of my correspondents wrote, when a discussion came up, "I think the words OCRACHEOUS and VINACEOUS are words the hybridizers and growers like to roll around under their tongues!" I agree with him.

P.S. Did you see that Editor's "HO! HUM!" at the end of my last paper? I believe all he does is sit around with his tongue in his cheek!—*Mary F. Tharp.*

MEMBER GROUPS — LOCAL

Dallas, Texas. Answering your query regarding "Iris growers in Dallas" . . . our Dallas Iris Society has had very few meetings during the war years, but the interest of individuals and members has not abated in the least, although there have been a great many changes. Each year individuals have added to their collections and have enjoyed inspecting each other's gardens.

With the enlargement of a vast area around Love Field, commercial and military airport, the homesteads of three of our most interested growers were "liquidated." Our president, Boley Cochran, was one of those who had to seek a new home. His new garden was landscaped especially for the display of iris by Arthur Berger, talented brother of Dr. B. J. Berger, another iris enthusiast. This garden has but one fault, which is it is too small for Mr. Cochran to continue hybridizing on the scale that he had been developing.

Dr. Berger's hillside garden, equally attractive, is also far from extensive in size, though is also charming and reflective of its owner's personality.

Mrs. W. H. Benners has continued her experimental efforts and each year has produced a number of unusual and beautiful varieties, several of which she plans to introduce.

There are several other quite extensive collections here that I have not had the opportunity of seeing.

The death of Mrs. René Caillet was a great loss to Dallas for she had one of the largest commercial gardens in this part of the country and featured the newer introductions.

A discouraging factor these past few years has been the increase of root-rot, far exceeding any experienced in the past. No satisfactory analysis of the cause for this has yet, I am sorry to say, been advanced.

An intensive study-program on the various types of iris is being pursued this season in the Founders Group of the Dallas Garden Club. Mrs. Charles R. Moore, as an illustration of bulbous iris, has planted her extensive hillside and sunken gardens with thousands of the "Wedgewood" Dutch iris, planned to blossom in conjunction with the golden daffodils.

Mrs. Edgar Padgitt and Mrs. Garrett O. Moore have for several years been successfully experimenting with the Oriental irises, planted in especially constructed pools and spillways.

Jonette Atkins (Mrs. Welp) is largely interested in growing Louisiana and Southern native iris. Her keen disappointment over the devastating results of an unusually wet season and root-rot, coupled with her active governmental War Work, curtailed her efforts toward establishing our long-desired Iris Test Garden. Furtherance of this dream into a reality is one of the plans we have for the immediate future.

At present all are eager about the tentative plans that are being discussed for an iris show to be held in April.

In my own garden a number of the types of the beardless have flourished. Clumps of the Siberian, borders of *tectorum*, the *orchroleuca, aurea* and others of the American species and Spuria groups have all given gratifying results.—*Mrs. G. R. Scruggs.*

Southern California. The final meeting of 1946 was held in October with an illustrated report from Mrs. Otto Stuetzel on the Annual meeting of the A.I.S. The members responded almost *en masse* to the invitation of the Hollywood Garden Club to hear W. J. McKee with the Kodachromes of Eastern irises and gardens.

This emphasized our object of collecting (under the direction of Dr. Etta Gray) a similar collection. A contest has been suggested.

HELP WANTED (and does the editor of the A.I.S. second the motion!). Jot down on a postal or a bit of note paper a sentence or so and send it.

What is your favorite garden combination?

What success or failure did you have?

At least ask a question.

What would you like discussed?

Mr. C. G. White reports that he has had seed germinate after 17 years. Do not lose hope.—*From the "Iris Note," Dec. 1946.*

Canada:

On account of our limited and very scattered membership, the work in most parts of Region 16 (Canada) has to be done by correspondence, but in Ontario, where the membership is stronger, there have been during the past two years frequent requests for a get-together where we might talk over our common problems.

For some time I hesitated, knowing that a poorly attended meeting can be very discouraging, but a letter from Mrs. Bartlett left almost no choice. "It would be a splendid thing to really get acquainted with each other. It is so much easier to work with people whom we know personally than with those whom we know only by name." Subsequent events have proven the truth of her statement.

Notices were sent to irisarians across Canada regardless of whether they were members or not, to let them know just what we were doing. Many who were too far away to attend sent their good wishes and offered their support. Nearly all within reasonable distance who could come, were present. Those who were not members when they came, had joined before they left.

The meeting was held on Saturday afternoon, December 7th, in the Royal Connaught Hotel, Hamilton. Representatives were present from Stratford, London, Ingersoll, Georgetown, Brampton, Richmond Hill, with an unusually large contingent from Toronto, and all brim-full of enthusiasm.

Everyone on arrival was introduced, but this seemed almost unnecessary, for the spirit of the meeting was most friendly and informal.

W. J. Moffat, regional vice-president, thanked everyone for being present, and stated that the meeting had been called in response to repeated requests for such a gathering. After briefly reviewing the work of the past three years he expressed his conviction that by the organization of its members Region 16 could make a more effective contribution to the work of The American Iris Society.

A proposed organizational set-up was then placed before the meeting and after discussion was adopted and named the

CANADIAN IRIS SOCIETY

(Region 16, A.I.S.)

The election of officers resulted as follows: W. J. Moffat, Hamilton, President; Mrs. Harry Bickle, Toronto, 1st Vice-President; Wm. Miles, Ingersoll, 2nd Vice-President; L. Laking, Hamilton, Secretary. Directors: F. C. Biehl, Stratford; Mrs. C. B. Broddy, Toronto; L. W. Cousins, London; Dr. E. Horne Craigie, Toronto; J. C. Taylor, Guelph. Regional Directors: K. Christiansen, Victoria, B. C.; H. B. Mann, Regina, Sask.; H. Teuscher, Montreal, Que.; Wm. MacDonald, Sydney, N. S. Committees: R. G. Cole, Hamilton, Publicity; Wm. Miles, Ingersoll, Hybridization; R. D. Little, Richmond Hill, E. Roper, Stratford, Exhibition; Mrs. H. Bickle, Toronto, Miss M. S. Castle, Meadowvale, Membership; J. C. Taylor, Guelph, Recorder of Introductions.

Following the business meeting, Mr. Wm. Miles, well-known naturalist and hybridist, gave an address on the work accomplished by hybridization during the last sixty years.

Mr. Miles, who is a native of Surrey, England, was for four years with the Royal Horticultural Society, and for the latter portion of this period was secretary of the floral committee. Himself a pupil of the great W. R. Dykes, his interest in iris culture and hybridizing dates from that time. Coming to Canada in 1912 and continuing his work, his contribution to horticulture was recognized when the Canadian Horticultural Society in 1938 awarded him a diploma and medal for his achievement in hybridization, especially with the iris.

In his address, Mr. Miles went back to those early days when there were only a few varieties known, compared with the thousands today, and they were predominantly blue in color. He described the work of Sir Michael Foster and, mentioning some of his early creations—Catrina, Shirin and Nazirin—showed how they formed the basis of the work in hybridizing that is being done today. By giving examples he explained how, by crossing, not only were new colors obtained, but great improvements in form, size and branching. The interest and the value of his address was greatly enhanced by his habit of asking questions which provoked discussions. What characteristics has Amigo to make it so popular? The answers were, individuality, distinction, something different, charm, personality. In our judgment of an iris this characteristic should be valued.

After an expression of appreciation to the speaker the meeting was formally adjourned, to meet again at the call of the executive.

But the enthusiasm found committees meeting then and there to plan their work. It is worthy of note that during the six weeks that have elapsed between then and the time of writing (January 23), our Canadian membership in the American Iris Society has more than doubled, and we are confident it will be trebled.

But we have no target to shoot at. We do not know the membership in the other Regions. Why not publish alphabetical lists of the members by Regions, so that we can know where we stand? It would be a wonderful help to each Regional vice-president if he could know at a glance who and where his members are. It might create a friendly rivalry between Regions, and boost membership

VARIETAL COMMENTS — 1946

Aladdin's Wish (Murawska): Unselfish little boy was Aladdin.

Alza Hola (Snyder): I see nothing about this that I like.

Arab Chief (Whiting): Fine color. Fair branching. Worth a trial.

Atrous (Gage): Velvety Black Purple. On a well grown plant this should be fine.

Better News (Betcherer): A very unusual white Iris. Standards flushed blue, falls flushed pink. Large yellow feather on the style arm. I like this very much.

Billowy Sea (Norton): A good blue, not outstanding.

Blue Rhythm (Whiting): A very fine medium blue.

Bridal Veil (Mitchell): An old timer but it seems to be still satisfactory. Should have wider distribution.

Burmese Gold (Whiting): A color I do not care for.

Bataan (Kleinsorge): Seemed to have everything but brightness. A good flower but very dull as to color.

Cahokia (Faught): My iris thrill of 1946. A large blue. No trace of lavender as I could see. The only thing I could think of to improve this one would be to remove about 6 inches between the ground and the lower branch. A crowd stopper in my garden.

Cappriccio (DeForest): A good combination of tan and yellow on a good plant.

Cascade Splendor (Kleinsorge): One of the best Irises from Dr. Kleinsorge's garden. If it is any better on a two year old plant it will be marvelous.

Copper River (DeForest): On a one year plant this was very good. Something new in color.

Casa Morena (DeForest): Fine color and branching. Very lacking in form. The color is deeper than Bryce Canyon on an established plant.

Desert Song (Fay): The first fine cream colored Iris since Snoqualmie. Bigger and better.

Distance (P. Cook): Fine clear light blue self. Another blue blue. A must have.

Easter Bonnet (Maxwell): A pink and yellow blend that is really tops.

Gallantry (Whiting): I do not care for this one.

Lake Shannon (DeForest): For me this blue should have been left in the seedling bed.

Illinois (Hall): This cream of Dave Hall's will make Desert Song get up and hustle.

Lamplight (Schreiner): Every time I see this one I like it better.

Lord Dongan (K. Smith): A very good purple Iris.

Mavoureen (Benners): A very nice lilac blue self from the garden of Mrs. Benners. Not large but fine.

Mount Timp (Muhlestein): For those who like the plicatas here is a rose and white one of different form.

Jake (Sass): Due to an error my first comments are wrong. Jake definitely was not the Iris I described. Here is a flaring heavily substanced flower that is probably the best white in the $1.00 class. One of the most popular in my garden.

Pale Dawn (Fay): A very fine blue white Iris.

Pierre Menard (Faught): A sister seedling of Cahokie but a medium dark hyacinth blue. Substance excellent.

Rose Top (Sass): Another good rose and white plicata.

Salamonie (P. Cook): A very fine pink blend. A decided improvement of Pink Reflection.

Sky Ranger (Hall): A large ruffled, medium blue self. Its 56 inches of height make it too tall to suit me. It was not this tall as a first year bloom.

Sylvia Murray (Norton): Another fine blue.

Three Cheers (P. Cook): Color better than Amigo. Branching poor.

Tiffanja (DeForest): An erratic doer. Fine some places. Poor others. Have seen it as a decided plicata and I have seen it with no marking.

Tishomingo (Caldwell): The color did not seem as good this year as last.

Vice Regal (Trafford): A very good purple.

Vision of Mirza (DeForest): A nightmare.

Hall 46-11: Showy raspberry pink. Lots of garden value.

Hall 46-19: A very good blue bitone similar in color to Amigo.

Hall Pinks: Really an outstanding array of flowers. There were too many for any one to judge until we see which ones Dave saves after next year.

RALPH M. SCHROEDER, *Illinois.*

Improvement of the new type of pinks is in progress, and dedevolpments to date indicate that clear colors and size may be obtained before long, if not already around the corner. Light colors generally appear in the seedlings, and the deeper pinks will probably be harder to obtain.

Anyone eager for encouragements as he proceeds with the breeding had better make matings within the group as he is likely to get a series of the desired type while if he breeds the new pinks to blends or to any other types of conventional iris he will probably obtain none or extremely few. However, this should not be taken as implying that progress may not come from outside crosses as one seedling in several hundred might be a winner.

Last year 75 per cent of the seedlings which I obtained from a cross of Melitza and Flora Zenor were of the new type while in exproratory crosses of these two with pink blends and other sorts I got less than 1 per cent and saved only one seedling from 350 that bloomed.

I made a study last season of new pinks, resulting in the following notes and comments:

BIRD OF DAWNING (J. Sass, 1942): Color shell pink or almost white with a touch of orchid in the standards; color clear in the falls and lighter than in standards, field almost white. Substance is excellent, and the brightness imparted by the sheen is distinctive. Inner one-third of the beard is light tangerine or deep orange while in the outer two-thirds the color diminishes. Branching good; fairly thrifty grower. Plants seen produced no pollen, but I understand that the variety is not always sterile.

FLORA ZENOR (J. Sass, 1942): Color about the same depth as in Spindrift and Pink Lace; standards a good clear pink; color in falls not clear; orchid blend in the field; violet venation heavy on haft and extending a little beyond the tip of the beard; beard becoming thin at tip; flowers of good form but smaller than in Melitza; branching good. Neither in 1945 nor in 1946 was I able to get a seed pod on it by using Melitza and Pink Lace pollen, but "takes" were obtained both years by using its pollen on Melitza and several other varieties.

LEILANI (Wash., 1943): Orange pink; color in standards clear with the lower edges orange pink; striation three-fourths of the way down the falls; style orange pink; beard light tangerine, becoming thin at tip; flower form good; branching good; much increase; leaves narrow and much like those of Melitza.

MELITZA (Nesmith, 1940): Shell pink or almost white; purple markings on dusky haft ground; color of beard diminishing toward tip; size of flower medium with us. Its thrifty growth and liberal increase is transmitted to virtually all its seedlings. It is a good seed parent, and takes are obtained quite easily when its pollen is used on other varieties. The seeds are plump and give good germination.

PINK LACE (Sass, H. P., 1945): Standards with good uniform pink; falls wide, in color much like those of Flora Zenor; venation heavy on haft; striation extending half way down falls; color of beard diminishing at tip; form of flower good.

SPINDRIFT (Loomis, 1944): Color much like that of Pink Lace; striation extending two-thirds down falls; beard becoming thin at tip; flowers of good size but of peculiar form, the falls being stubby; branching good.

TITIAN LADY (Douglas, 1941): White with tangerine beard.

Notes were also taken on pink blends, and the observation can be made that in many varieties of this group much is lacking as regards substance and brightness.

CHINA MAID (Milliken, 1936): Much overrated; presents a washed-out appearance; falls long and rather narrow; standards uniformly colored; falls lighter and with light field; much venation on haft; beard thin.

COPPER PINK (Kellogg, 1941) : Lacks character; color diminishing too quickly; form not good.

CORAL MIST (Grant, 1941) : Poor substance; lacking brightness; stalk weak.

DAYDAWN (Whiting, 1944) : Much like Easter Bonnet, but color a little deeper, flowers not as large, no edging on standards and beard more prominent; standards ruffled; falls partly flaring; stalk inclined to be crooked.

EASTER BONNET (Maxwell-Norton, 1944) : Has brightness and charm; falls drooping, rhodenite pink with lighter edges; standards same color, ruffled; haft luminous yellow with prominent venation; light striation on falls; branching good; stalks somewhat crooked.

L. MERTON GAGE (Lapham, 1942) : Two-tone pink with dull effect; heavy purplish venation on haft.

HOOSIER SUNRISE (Lapham, 1943) : Pink blend bicolor; standards domed; light venation on haft; falls wide and somewhat flaring.

LULLABY (Hall. 1943) : Two-tone with standards a good pink and falls orchid pink; flowers large, show liveliness of color.

MELANIE (Hill, 1940) : Two-tone orchid pink; lacking in color appeal.

MICHAEL (Norton, 1946) : Vinaceous pink self with but little venation on haft; glistening texture; flowers large, somewhat bunched; stalk heavy but short.

MISS CALIFORNIA (Salb., 1936) : Two-tone pink or nearly self; more attractive than China Maid; falls broad with soft violet striation on nearly white ground; beard thin.

MOROCCO ROSE (Loomis, 1937) : Color more lively than in Miss California; standards slightly lighter than the falls, thus making it a two-tone instead of a self as described in some catalogs; falls uniformly colored; considerable brown venation on haft; beard orange, fairly heavy and carrying out well to its tip; flowers generally bunched a little.

PEACH GLOW (Kleinsorge, 1943) : Peach pink two-tone; golden color on haft distinctive; beard orange, heavy; color deeper just below tip of beard; branching good.

PINK REFLECTION (Cook, 1942) : Pink, slightly smoky, thus giving dull effect; much light venation on haft; standards short; falls widely flaring; good branching.

REMEMBRANCE (Hall, 1942): Outstanding among pink blends for good substance and near approach to true pink; a self with clear color; haft sulphur yellow with light venation; beard and styles yellow; falls flaring; stalk strong; branching good except for a little bunching at top. As seen in the last two seasons, it has impressed me as lacking warmth of coloring.

ROSE PEARL (Salb., 1944): Bright two-tone pink, much like Morocco Rose but falls wider.

SHOW GIRL (E. Nelson, 1945): Blush rose, a true self. Difficult to get seed pods on it, but takes readily obtained when using its pollen. A cross with Hall 40-85 gave a series in 1946 of pink and red blends showing vigorous growth, strong stalks, plenty of size to the flowers and stalks mostly of moderate height with some tall.

TEA ROSE (Whiting, 1944): Pink blend, almost a self; substance poor; beard golden.

Elias Nelson, *Washington.*

PUBLICITY. IDEAS! RESULTS?

■ Personally I think the article regarding the necessity of increasing the membership in 1947 should have been in the last bulletin of 1946, then a follow up in Bulletin No. 104. Then in the meantime you may have had suggestions from members as to how we can increase the membership. Just how many new members is necessary? Should we have 500, 1,000 or 2,000 new members? Membership drives and money drives are not new to the people, and when we have something definite to shoot at, every one works toward that goal. If we need to double the membership I offer three ways in which this can be done and be done very easily.

First—One of the easiest ways to increase the membership is for every single member to give a present of one membership to some friend, who is or may be interested in Iris. Every year thousands give someone a subscription for some magazine. Why not a membership in the AIS?

Every single member should do this. It's so easy to do. If they don't have the $3.00, they can save ten cents per week for 30 weeks, and anyone can save ten cents per week for 30 weeks.

Second—Let each member take the responsibility of selling one new membership during 1947. Many members will sell more, and I would dislike very much to think that we have a single member in the society that would say "I am not capable of selling at least one membership during 1947."

If every member will give one membership to a friend, and every member sell one membership, we will have a total of 3,928 new members in 1947. Just how many new members do we want? There is no limit to the number we can get if we go after them.

Third—The suggestions here may not meet with everyone's approval, however, I think every seller of Iris that puts out a catalogue or list should give considerable space to the sale of AIS membership. I would suggest a space be used equal to the space given one of the feature Iris. They should not only suggest membership in this space but should point out the reasons why. I venture to say the largest orders always come from Members, and their best all around customers are members, and all their sales of the newer introductions are to members. It would be to their advantage to promote the sale of membership in the AIS.

It is pitiful what little space is devoted to AIS membership in some of these catalogues, and some never even mention it, and if they do it is in some spot that is more apt to be overlooked than read. If sellers wanted to do something for the AIS they could even go as far as giving premium Iris for new members. The majority of them could actually give a membership with each $30.00 order. They could give FREE one $2.50 Iris with every order for $15.00 in Iris and one membership. These amounts are only used as examples. Some sellers of Iris probably will not like to hear this, but frankly someone should go after them. They benefit more than anyone else in a financial way and I have an idea their business would suffer terribly if it were not for AIS members. These are only my ideas, but in a country with millions of people that love flowers and beautiful gardens it seems ridiculous to have only a membership of 1,964.

The first quarter of the year will be gone when the next BULLETIN comes out, but if each member is made to realize their responsibility in this campaign they can make up for the three months lost.

With the cooperation of all members 100% who knows but what all those "Housewives operating on a budget and those Husbands who pay the bills" might in time have their dues reduced or be able to receive one or two extra bulletins each year. Honest I don't think it would speak so well for the society if we had to raise the dues. Wouldn't it be much better publicity to increase the membership to the extent that dues could be reduced or an extra bulletin thrown in? I am sending to Howard Watkins $3.00 to cover membership dues for a friend of mine. I definitely know that we have one new member.

Yours for at least 1,964 new members in 1947.—*Ray K. Rickman, Joplin, Missouri.*

May I suggest that there are many persons who do not even know that the American Iris Society exists. As a suggestion may I say that perhaps each member should send a copy of one of the BULLETINS to a friend who is interested in iris and perhaps it would acquaint them with the society and possibly promote their membership.

At present, these BULLETIN can be purchased by the members for the sum of 50c each. If each member would subscribe to at least two bulletins and present two names for them to be sent to, perhaps this would in the long run build a membership. However, I would not suggest that you send the BULLETIN 104 wherein you are giving the need of membership but would wait until an issue comes out that would be proper for a beginner. With this information in a BULLETIN, it would impress a new member and thus encourage his desire to become a member.

This is only a suggestion and may not serve our purpose, but I would like to see the BULLETIN larger and by all means let's do not reduce its contents. I would rather see the dues raised than the information limited.—*Emsley Sims, Neosho, Mo.*

Why does not the A.I.S. have available pretty post cards with irises on them, perhaps one yellow, one blue, white, etc., if the cost is not excessive, or even an arrangement for a Christmas card? I am sure many would use them and at least the name of the Society be advertised.—*Mrs. Julian C. Keith, Warrenton, Va.*

■ We quote from a letter received from Mrs. Raymond Huff, Seattle, Washington. "*I have enjoyed my year in the Society very much and I know that I will continue to profit greatly from my membership.*" We are glad you have, Mrs. Huff, and the BULLETIN will try to make it worthwhile for a new member to become an old member. "*I do not believe we can know too much about our favorite flowers, and I read each* BULLETIN *with renewed in-*

terest.'' The experience and knowledge of people who have made iris the hobby of a lifetime are yours for the asking, Mrs. Huff, through the medium of the BULLETIN and from personal contact with the members of the A.I.S.

''I am wondering, however, if those of you in the East realize that you have some very good iris growers out here, and that we have almost perfect conditions in climate and soil for the proper growing of iris. We **would** *like to see some more in the* BULLETIN *about this part of the country and the iris growers out here.''* Mrs. Huff, this Editor is awfully glad you brought this question up. Certainly, we know that you have wonderful soil and weather out there, and fine gardens and marvelous people. But so does Texas and New England and Utah and New Zealand. The point is, Mrs. Huff, we cannot print what we do not have.

Now take me for instance, Mrs. Huff. I am the new editor. I would like very much to have every issue of the BULLETIN a good one. I would like to have every section in the country to have some part in what is written. Sure, I want to make a good impression. I would like to have something from the Pacific Northwest for this very April issue. But the telephone is ringing. A truck is waiting outside, there are tires to be sent to the depot and there are three carloads of grain on track. So what do I do? I write Mrs. Lothrop in California for an article on the California species. I know before I write that Mrs. Lothrop will do it and do it well. Every Editor of the BULLETIN has called upon this good lady in time, and she has never failed to come through. That is why you see the same authors' names again and again in the BULLETIN. Not that there are not others in our Society who are eminently qualified to write authoritatively upon many subjects. There are most certainly. BUT, for some reason or other the articles are not forthcoming. How much better it would be if members would write in to the BULLETIN their own experiences, varietal comments, color combinations, species notes, notes on tours and gardens—anything that is new and unusual to you, as an iris gardener, will be interesting to other iris gardeners.

''We have here in Seattle a very enthusiastic 'Seattle Iris Society' with a membership of seventy to begin with . . . etc.'' Mrs. Huff, I am ending this BULLETIN No. 105 with the same theme I used to close the last issue—NEW MEMBERS. In that editorial your Editor

pointed out some impending events that make an increase in our membership imperative. How many of the seventy in your group are members of the AIS? Not all of them I am sure. And also I am sure there are several who would join us with the right kind of sales talk. Why don't you try this: hold a spring meeting of the group. Get Mrs. Corey to send you the AIS slide collection and show it as the feature attraction of the meeting. She has some very good slides. I know for I have seen most of them. Some won't be so hot, but many of them were taken by Eleanor Hill and she takes marvelous colored pictures. After the show is over, pass around a fountain pen and some membership cards!—*Ed.*

CAYEUX INTRODUCTIONS AND PARENTAGES.

RENE CAYEUX, OCT. 11, 1946.

ACROPOLE. TB-M-W3L (1939); (Fakir × San Francisco).

AIGUE MARINE. TB-M-S3M (1939); R., 1938; (Mado × President Pilkington).

ALADIN. TB-EM-R9D (1937); (Charles Henry × Depute Nomblot).

ALICE HARDING. TB-M-Y4L (1933); (Iceburg × Evolution).

AMENOPHIS. TB-M-S3M (1939); R., 1937; (Carillon × Vert Galant).

ANNE-MARIE BERTHIER. TB-M-WW (1939); (Parentage lost).

ANNE-MARIE CAYEUX. TB-E-S4L (1928); (Sindjkha × Germaine Perthuis).

ANTIGONE. TB-M-Y4D (1939); R., Cay. R.; (Drap d'Or × Hisphan).

ARIANE. TB-M-W8M (1925); (Chaldee × Fakir).

ATHAIA. TB-M-B2M (1936); (Pierrot × Maria Chappedelaine).

AUBANEL. TB-M-S7M (1936); (Erromangco × Alice Harding).

BEOTIE. TB-S3L (1932); (Ochracea Caerulea × Dryade).

BURLESQUE. TB-M-Y9D. (1938); R., Cay. R.; (Iago × Vision) × (Claude Aureau).

CALIGULA. TB-S9M (1937); (Corsaire × Primat).

CAMEROUN. TB-M-B9D (1938); R., Cay. R.; (Parentage lost).

CLAUDE AUREAU. TB-M-Y9D (1928); (Sensation × Bruno).

CONSTELLATION. TB-E-Y9D (1936); (Armor × Carillon).

COPPELIA. TB-M-S9M (1939); (Marivaux × Evolution).

CORINTHE. (TB-M-B9D (1934); (Chimene × Dominion).

CORIOLAN. TB-M-S4L (1930); (Ambassadeur × Bruno).

COURS-LA-REINE. TB-VLa-Y9L (1938); (Arlinde × Fakir).

DEPUTE NOMBLOT. TB-M-S9M (1929); (Francheville × Bruno).

DIRECTEUR PINELLE. TB-M-S9D (1932); (Penelope × Bruno).

DRAP D'OR. TB-M-Y4L (1936); (Beotie × Genevieve Serouge).

ECLADOR. TB-M-Y4D (1932); (Fantasia × Pluie d'Or).

EMOTION. TB-M-S8M rev. (1939); (Alice Harding × —).

FASCINATION. TB-M-R1L (1927); (Solferino × —).

FAVORI. TB-M-B7D (1934); (Marc Aureau × Cardinal).

Florentine. TB-W8M (1937); (Chaldee × Sigurd).

FRIVOLITE. TB-M-S9L (1929); (Trophee × Prinzess Viktoria Luise).

GENEVIEVE SEROUGE. TB-M-S3L (1932); (Iceberg × Evolution).

Harmonie. TB-Y3L (1938); (Serenite × President Pilkington).

Helios. TB-M-S4M (1928); (Claude Monnet × Clementine Croutel).

Hermione. TB-S4M (1934); (Nemo × Don Juan).

HERNANI. TB-M-S7M (1929); (Parentage lost).

LOUVOIS. TB-M-S6D rev. (1936); ((Fetiche × Roi Soleil) × (Iceberg × Evolution)).

LUTETIA. TB-M-W6L rev. (1938); (Purissima × Evolution).

MADAME LOUIS AUREAU. TB-E-W8M (1934); (Fakir × Ferdinand Denis).

MADAME MAURICE LASSAILLY. TB-M-B3M (1935); (Armor × Carillon).

MADAME SEROUGE. TB-M-S9D (1929); (Francheville × Graziella).

MADAME ULMANN. TB-M-B1M (1936); (Madame Maurice Lassailly × Genevieve Serouge).

MALIBRAN. TB-S3L (1938); (Iceberg × Phebus).

MARIE-ROSE MARTIN. TB-M-S9M (1939); (Serenite × President Pilkington).

MARIETTA. TB-M-S4L (1938); (Anne-Marie Cayeux × Genevieve Serouge).

MARINELLA. TB-M-Y9D (1937); (Armor × —).

MARQUITA. TB-M-Y9L (1931); (Symphonie × Helios).

MASSENET. TB-M-Y9M (1936); (From seedling).

MELEDA. TB-M-B1L (1939); (Victor Hugo × Fulgore).

MORGANE. TB-M-W9M (1935); (Jean Cayeux × President Pilkington).

NENE. TB-M-B9M (1928); (Clementine Croutel × Bruno).

NICOLE LASSAILLY. TB-M-B1D (1938); (Polichinelle × Don Juan).

OURIKA. TB-M-Y3L (1937); (Horace × Roi Soleil).

PAILLASSE. TB-MLa-Y9D (1936); (Marquita × Redalga).

PALERME. TB-M-Y3L (1937); (Fakir × Chaldee).

PERSAN. TB-M-R1D (1938); R., Cay. R.; (Genevieve Serouge × Ferdinand Denis).

PERSEPOLIS. TB-M-R3M (1939); (Farandole × Cardinal).

PHARAON. TB-M-Y4L (1938); (Parentage lost).

PHEBUS. TB-MLa-Y4L (1930); ("yellow").

PLATON. TB-M-B7M (1939); (unknown).

PLUIE D'OR. TB-MLa-Y4M (1928); (Shekinah × Chasseur).

PLURABELLE. TB-M-Y9M; (1933); ((ELDORADO × GLORIOLE) × (EVOLUTION)).

PRESIDENT LEBRUN. TB-M-S6D (1933); (FARANDOLLE × Troubadour).

PRESIDENT PILKINGTON. TB-M-S1L (1935); (ICEBERG × EVOLUTION).

PROFESSEUR MITCHELL. TB-M-B7D (1930); (DAVID × Terpsichore).

PYDNA. TB-R9D (1938; (Vulcain × DEPUTE NOMBLOT).

RABAHERE. TB-Y9D (1937); (Parentage lost).

RAMUNTCHO. TB-M-S9M (1939); (Unknown).

Rapiere. TB-M-Y9D (1937); (VOLUPTE × PTOLEMEE).

RONDEAU. TB-M-S9M (1939); (HORACE × ALICE HARDING).

SEDUCTION. TB-M-W5M (1933); (ARLINDE × hybrid of ENSORCELEUR).

SENSATION. TB-MLa-B1M (1925); (Parentage lost).

SERENITE. TB-MLa-S3L (1931); (CLAUDE AUREAU × PETIT VITRY).

SORENTE. TB-M-Y9M (1937); (Parentage lost).

TANAGRA. TB-M-B9D (1939); ((DR. CHOBAUT × FORTUNIO) × (MEMNON × MAGALI)).

VEDETTE. TB-M-Y6M (1936); (SERENITE × PRESIDENT PILKINGTON).

VENETIENNE. TB-B7L (1937); (MRS. VALERIE WEST × REDALGA).

VERT GALANT. TB-M-S9D (1929); (SINDJKHA × BRUNO).

VISION. TB-M-S6D (1932); (CORIOLAN × CLAUDE AUREAU).

VOLTIGEUR. TB-M-R6D (1934); ((ALCYON × Blanchefleur) × B. Y. MORRISON).

VOLUPTE. TB-M-S9D (1934); (Parentage lost).

ARRANGEMENT CONTEST. Send Entries to Mrs. George Steedman, 1220 Oregon Ave., Roanoke, Va. See No. 103 for rules.

ERRATA: No. 104, p. 61 St. Osyth (Meyer, R. H.) and pp. 62 and 67 Pearly Gates and Jack O'Lantern to (Graaf Est.) not Graaf.

SHOWS. A CERTIFICATE OF COMMENDATION is available for award at exhibits **only** and under the usual rules—a majority of the judges.

A.I.S. Membership may be substituted for the Check List in any Prize List. YOUR Garden Club, YOUR TOWN, and you would enjoy an IRIS SHOW.

MINUTES OF THE MEETING OF THE BOARD OF DIRECTORS OF THE AMERICAN IRIS SOCIETY, NEW YORK, N. Y., JANUARY 27TH, 1947

Briefed

The meeting was called to order by former President J. E. Wills, serving as temporary Chairman. The following Directors were present: Messrs. Cassebeer, Cook, Douglas, Fishburn, Graves, Hall, Lapham, McKee, Wills and Watkins.

Minutes of Meeting June 1946 were approved. Report of Treasurer was approved. The Secretary reported that the Election Committee appointed by the President reported the unanimous selection of the following officers:

President, Franklin Cook
Vice President, Robert J. Graves
Secretary, Howard R. Watkins
Treasurer, E. Greig Lapham

Mr. Wills thereupon turned the chair over to the new President, Dr. Franklin Cook. As the first new business, the Board accepted the invitation from the Chicago group to hold the Annual Meeting there in 1947; from the Nashville group for the Annual Meeting in 1948; from the Pacific Northwest for the Meeting in 1949. It was moved that Mrs. Whiting be contacted with regard to having the Annual Meeting in the Sioux City-Omaha area in 1950.

It was moved and carried that a new Region, No. 18, be created by removing the State of Illinois from Region 9, which after subdivision would include the remaining states of Iowa, Missouri, Nebraska and Kansas. Henceforth Region 9 will be the State of Illinois.

The President's appointments for Regional Vice-Presidents were approved by the Board. (See inside back cover.)

Mr. Robert E. Allen was appointed Recorder of Introductions.

The Medal for Distinguished Service was awarded to the retiring President, Mr. J. E. Wills.

The Medal for Hybridizing was awarded to Mr. Kenneth D. Smith.

The appointment of Mr. Geddes Douglas as Editor of the Bulletin for 1947 was confirmed.

It was moved and carried that the President be authorized to arrange for the payment of the traveling expense of the Chairman of the Scientific Committee or other Technical advisers, during the current year, when in his opinion the presence of such an adviser is required and the adviser would not otherwise be present.

The Secretary reported that at present we have in stock 935 copies of the 1939 Check List and 150 copies of the 1942 Supplement. It was moved and carried that a comprehensive Supplement be published in 1949.

The President appointed the following Committee to proceed with the publication of a manual of iris culture authorized at the Boston meeting of the Board, June 1946: Geddes Douglas, Chairman, Jesse Wills, Robert Sturtevant, Franklin Cook, ex officio. This committee was authorized to publish the manual according to plans submitted to the Board at an expense not to exceed $5,000.00.

The sum of $100.00 was voted to the Scientific Committee.

It was moved and carried that the term ''Registration'' shall be defined as the act of acceptance by the Registrar of a name not previously registered, or one that has been registered but declared ''obsolete'' or ''void.'' The date of such registration to be effective when the name is accepted by the Registrar and NOT when it is printed in the BULLETIN.

It was moved and carried that Robert Sturtevant be asked to head a committee to arrange the publication of a list of gardens open to the public simultaneous with the publication of the Membership List in 1949.

It was moved and carried that the numerical rating of iris be suspended for one year.

It was moved and carried that award ballots ONLY be sent to the accredited judges this year (1947). After awards are given out in July, current award iris will be added to the Symposium ballot to go to all judges the last of July. The deadline for return of the Symposium ballot to the Tabulator is to be August 31st, giving the Tabulator ample time to score the varieties for publication in the January BULLETIN.

It was moved and carried that an affirmative vote of 25 judges be required for the Dykes Medal and that the Chairman of the Awards Committee substitute this figure in the Policy of Awards and Ratings instead of the figure ten as previously required.

It was moved and carried that the award of ''Highly Commended be made a garden award only. Further that the award

"Certificate of Commendation" be established for use at an iris show when in the opinion of the majority of accredited judges (AIS) present the iris seedling exhibited merits this award, and further, that such award or awards be reported through the Chairman of Exhibitions.

It was decided that the Exhibition Chairman be empowered to substitute a membership in the society in place of the Check List as a prize at iris shows.

The President appointed the Editor as Chairman of the Editorial Committee, the other members to be named by the Editor.

The President announced that a Photographic Committee would be appointed.

The suggestion that the 18 regions be recast with a concept based upon climatic similarity was referred to the Scientific Committee. This Committee was asked to initiate preliminary studies into the problems of the control of soft rot, leaf spot, scorch and the iris borer pending more active investigation of these diseases by competent plant pathologists and entomologists. It was suggested that this committee include in its program the development of disease resistant garden iris varieties. Also that a study be made of regional ratings of iris on the basis of adaptation.

It was decided that the President should consult with Mr. Gersdorff concerning the suggestion that a fee of $1.00 be charged for registration; that registrations and introductions be combined; that the dwarfs, intermediates and the tall bearded classifications be clarified; that, if an iris be not introduced into commerce by listing in a catalogue for a period of five years from registration, such registration be declared void, making the name available to the first applicant who requests it.

It was decided that after the appointment of a chairman of the Membership Committee, an intensive campaign for new members would be inaugurated.

Two changes in the By-Laws of the Society were suggested. (1) That Directors hold office for two consecutive terms only, and (2) That all past presidents be made ex officio members of the Board of Directors with full voting privileges. These changes were referred to the Committee on By-Laws to be brought up at the June Meeting, preparatory to submission to the membership.

DAYLILY CHECK LIST — ANNOUNCEMENT

The American Plant Life Society announces that Mr. Fredrick Stuntz has been appointed Assistant Registrar to Prof. J. B. S. Norton, who is completing the preparation of a Daylily Check List originally begun by Dr. L. H. MacDaniels before he left for the Near East in 1943.

All persons interested in the Daylily as a garden subject are urged to cooperate with Prof Norton and Mr. Stuntz so as to make this Check List complete and of maximum usefulness. Daylily breeders and introducers are requested to forward to Mr. M. Fredrick Stuntz, 6505 Main St., Williamsville 21, N. Y.:

a. Date when clone was described in a recognized publication (book, periodical, trade catalogue, mimeographed list, etc.).

b. Name of breeder and introducer. Also copy of publication.

c. Complete description of clone. If illustration has been published, exact reference should be furnished.

d. Other names or synonyms should be furnished together with reference.

The above information will greatly assist in the checking of the list which is to be published in HERBERTIA, Vol. 14, 1947.—*Ed.*

IRIS GROWER'S NIGHTMARE (CENSORED)

The iris went out two by two,
The variegate and icy blue,
Whites of which there are too many,
Yellows, thank you, for us not any.
Blends—untouchables of the lot!
Tan or pink, out they shot.
Oncos—purple and chartreuse,
No garden value so what's the use
Intermediates, where to put 'em,
Reclassify, or just uproot 'em.
Plicatas, o-o-h, no use to hedge,
Suffered from the razor's edge.
Where to turn, what to do,
But look, there's always something new.
A red bearded pink, A-h-a, you've hit it,
But zippity-do-da! A name to fit it.

FRED DEFOREST.

CHANGES IN THE MEMBERSHIP LIST OF THE AMERICAN IRIS SOCIETY FROM FEBRUARY 1946 TO JANUARY 1947

The Changes Include New Members, Reinstatements, and Changes of Address

Adams, Mrs. E. L., Chico, Calif.
Adams, Mr. W. E., Encinitas, Calif.
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SURVEY OF RESISTANT VARIETIES

By the A I S Scientific Committee

Believing that one of the most important objectives in iris breeding at the present time is the development of vigorous, hardy varieties resistant to soft rot, leaf spot and the iris borer, this survey is being conducted to locate foundation stocks for an intensive breeding program aimed at the solution of this problem.

Breeding for disease resistance should be based on a reliable background of information concerning resistant and susceptible varieties. Regardless of other characters with which it may be associated resistance can be handled much as other characters such as growth habit, branching and flower color are handled in breeding experiments to develop improved varieties that contain the maximum number of desirable characteristics. The *first step* is to discover truly resistant varieties, wherever they may be among recent introductions, standard varieties or the older foundation stocks.

The most reliable information concerning resistance to a specific disease or insect pest is to be obtained in gardens where the disease or pest is prevalent. Varieties that succumb repeatedly are readily classified as susceptible, but truly resistant varieties can be identified only under conditions of severe infection or infestation, where the chances are reduced to a minimum that the healthy plants have not merely escaped the disease or insect pest.

The specific information desired by the Scientific Committee includes, (1) separate listings of resistant and susceptible varieties for each of the two diseases, bacterial soft rot and leaf spot, and (2) lists of varieties that are definitely resistant or susceptible to the iris borer.

Do not hesitate to list old as well as new varieties. Numerous records are desired from the various regions in which these diseases and the borer are prevalent in order to establish reliable ratings of resistant and susceptible varieties. Reports should be submitted not later than Oct. 1st, 1947, to

L. F. Randolph,
College of Agriculture,
Ithaca, N. Y.

RECORD OF 1947 CROSSES

General Genetics Program, A.I.S. Scientific Committee

This record should include all crosses, whether successful or not, and should be sent as soon as the harvesting of seed is completed to L. F. Randolph, College of Agriculture, Ithaca, New York.

Name of hybridizer (please print) ____________________

Address ____________________

CROSSING NUMBER	SEED PARENT	POLLEN PARENT	FLOWERS POLLINATED	PODS FORMED	SEEDS PER POD

Crossing Number	Seed Parent	Pollen Parent	Flowers Pollinated	Pods Formed	Seeds Per Pod

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1947 ANNUAL MEETING

TIME: Saturday, June 7th, 1947.

PLACE: EVANSTON, ILL.

HEADQUARTERS: THE NORTH SHORE HOTEL.

The North Shore, The Georgian and the Orrington hotels have agreed to reserve fifty rooms.

OTHER HOTELS: In Chicago The Palmer House, The Stevens, The Morrison, Hotel Chicagoan, The Sherman, and the Bismarck.

PROGRAM: Visit to gardens of Dave Hall, 809 Central Avenue, Wilmette, Ill., Orville Fay, 1522 Isabella Street, Wilmette, Ill., and Dr. Franklin Cook, 2747 Hurd Avenue, Evanston, Ill.